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The Causes of Pulmonary Consumption, and its Treatment by Superficial or Endermic Applications and the Inhalation of the Nutrient Elements of the Blood and Tissues. By H. P. DEWEES, M.D., New York.

(CONCLUDED.)

Every tissue is subject to disintegration. The equilibrium of the system is sustained, by the supply of new material being in proportion to the waste. When the decomposition of the structures overbalances their renewal, the loss of flesh alone is attractive to the non-medical observer. But, to the physician, it becomes significant of an over-accumulation of carbonic acid in the system. The individual is gradually becoming more or less poisoned. For the removal of this carbonic acid, and for the renewal of the consumed oxygen, the lungs are the most efficient organs. In the delicate membrane of the air-cells these changes are effected. But, if superficial impediment, as from obstructive mucus or thickening of the membranes, and consequent diminution of the interior capacity of the cells ensues, the vital interchanges are interrupted, and the whole organism is made to suffer.

The liver, also, aids in the excretion of hydro-carbonaceous matter from the blood. But the bile is not altogether excrementitious, since part of it is destined to be reabsorbed for the further uses of the econ-

omy. It is easy to comprehend from this view, that the arrest of the secretion of bile, not only causes the delay in the blood, of the materials that should have made their exit through the liver; but, also, that the portions which should be re-used for the purposes of assimilation, are not afforded. It behooves us to remember that the so-called inactivity of the liver may not be a sort of paralysis of the organ; but that the amount of materials forced upon it by an imprudent disregard to diet, are too great for its power to eliminate; and this, especially if the lungs are deficient in the acts of respiration.

The popular error of the bile "being something to be got rid of," has, no doubt, provoked many an assault upon the liver, by purgatives and "alteratives," once so fashionable, whilst the so self inflicted have sunk down, bewailing their misfortunes and their livers.

One of the peculiar offices of the bile is to regulate, through its alkaline action, the *degree* of the acid products of digestion. When duly mixed with the ingested chyme, it prevents chemical changes in the reduced pulp, thereby restricting the too rapid evolution of gas from fermentative decomposition, so troublesome to the dyspeptic. When bile reflows into the stomach, it becomes a source of discomfort, by the power it possesses in retarding the fermentative actions proper to the early digestion. These cases are sometimes troublesome to treat.

Dyspepsia is commonly regarded as a disorder of the stomach alone. But the duodenum, the cœcum, and other portions of the intestinal tract, have their appropriate dyspepsia. The translation of their symptoms can only be made out by the observant practitioner. Too much food for the amount of bile secreted is as injurious as too much bile for the quantity of food. These "weak-livered" people, these windy complainers, these supper-nightmare-invoked dyspeptics, form a large class in society. They are particularly fond of changing their doctors, or of gulping down quack nostrums. The homœopathic globules of moonshine are a Godsend to them. They can be continually taking these sugar nothings not only *without injury*, but with mental benefit. They change everything but their diet. Their skins become pasty yellow with a clammy sweat, or their palms burn whilst the surface is dry. Their clothes begin to hang in festoons; their conversations about their ailings are only interrupted by eructations, or abortive hiccups, whilst their bowels bag down in the protruded walls of the vein-covered abdomen. They are really unhappy in every fibre, and certainly are very uncomfortable companions.

Sometimes "chronic diarrhœa" is established; the bowel surfaces are irritated by the semi-digested acrid particles, producing constant

propulsive efforts. The discharges are generally whitish, offensive, and mixed with portions of the food, but without bile, which in some cases may make its appearance at the close of the strainings. In others, there is an over-quantity of bile with each stool, whilst portions of the food may or may not be discoverable. By repeated irritation, the glands in the duodenum cease to secrete, or else secrete improperly, and thus aid to impair those changes so essential for the renewal of healthy blood. Sometimes constipation attends the withdrawal of biliary secretion, the whole intestinal tract being sluggish.

When the food has been properly emulsified by the combined actions of the bile, pancreatic and enteric juices, the resulting chyle is subjected to the actions of the lacteals or intestinal absorbents. After the absorption by the lacteals has taken place, the alimentary matters are submitted to the internal glandular actions, through which changes are effected to render them assimilable. The substances taken up by the vessels of the stomach and intestinal walls, are subjected to the direct actions of the liver through the portal circulation. Thus it is, that the liver becomes an organ for assimilation as well as for depuration.

The influence of these combined actions over the production of tubercular consumption, is now manifest. The nutrient materials brought by the lacteals, the mesenteric and gastro-intestinal vessels, have to receive certain vito-chemical metamorphoses, that in part prepare them for the purposes of the blood, before entering the general circulatory current.

It is during the passage of the albuminous portions of the chyle through the lacteals, that the incorporative admixture of the oleaginous matters ensues. From this point the perfectioning of the albuminous and fatty particles of the food into "cells," takes place, by which they are rendered capable of assimilation. Without these oleaginous materials, this vital act could not be sustained, and the various nutritive processes would become abortive. Fat has first to *enfilm* the nascent cell, (whose function it is to bear life and regenesis into every portion of the body,) before nerve-vesicle or tissue can be fully developed. It is prompted by nature, that the inhabitant of cold climates shall partake of the gross fatty animal matters, whilst in the warm regions he still seeks those foods which shall yield saccharine matter, and the lighter vegetable oils. The process of enfilming must be carried on even in warm climates; but animal heat in these regions is more easily sustained, and only enough fat matter is required for cell

growth, and the construction of the adipose, nervous, and muscular structures.

If the fatty material be imperfectly supplied for enfilmation; or if the due amount be not *properly incorporated in the cell*, the reproductive energy of the structures becomes weakened or perverted, whilst the door for tissue waste and tuberculous deposits, &c., is opened, and chemical actions, with decay, are unrestricted. The old maxim that "evil communications corrupt good manners" holds good here. Decay begets decay; so leavening the whole, that vital energy has no restrictive barrier against death claiming its victim.

We will now refer more particularly to the transformations observed in the chyle during the vital process of nutrition. During its passage through the mesenteric glands, the resemblance to the blood becomes more apparent by the increase of the fibrin. It is now that the chyle corpuscle is found to be enveloped in a delicate film of oil, whilst the fibrin of which it is chiefly composed progresses towards a higher degree of vitalization. The chyle ingredients exist in different relative proportions, according to their progress from the intestinal walls to the mesenteric glands, and from these to the thoracic duct, or the great channel to the heart for the tissue uses of the economy. The proportion of fat, or oil globules, in the chyle, when passing from the intestines to the mesenteric glands, is great, whilst the albumen is only in a noticeable quantity. The chyle still appears to be a mere emulsion. True chyle corpuscles are yet deficient, and the fibrin has not been evolved. In its passage from the mesenteric glands to the thoracic duct, however, certain distinct changes ensue. The oil globules decrease, albumen exists in its greatest quantity, with vast numbers of chyle corpuscles, though not fully developed. The fibrin is now noticeable, whilst in the thoracic duct the fat in the chyle diminishes with the albumen, and the chyle corpuscles become well developed, and properly enfilmed with oil, with fibrin in great quantity.

It then becomes a matter of vital importance that the food should contain a proper proportion of saccharine, albuminous, and oily elements. Although the first two can be drawn from either vegetable or animal diet, yet the actions of these constituents in the blood differ materially, as seen in the disorders of gout and rheumatism. This difference is very noticeable in many consumptive patients, who, although requiring the due admixture of all the elements above mentioned, yet find by experience that it is not a matter of indifference whether they be supplied from animal or vegetable sources.

Since the conditions of the chyle, as above mentioned, vary greatly

in the different elaborating portions of the system, it requires not only the patient's experience to discover what articles—vegetable or animal—disagree; but, also, the medical man's scientific investigations, to determine *why* they disagree. It is an every-day occurrence to find some consumptives not only averse to oleaginous matters, but with whom these matters are practically found to disagree. Some find that the albuminous constituents of animal food derange their digestions, and fail to nourish, whilst others refuse those from vegetable diet. Still, the principle remains the same—the chyle formations (including the lymph) must be healthfully sustained, that the blood products shall be normal. The generation or renewal of tissue cannot be maintained, without affording to the blood not only the elements necessary for its reproduction, but also the *quality that is in organic harmony* with the structures themselves.

There are many consumptives who, apparently, have never been troubled with dyspepsia; and there are many dyspeptics who have died free from tuberculous disease. Although this is true in some cases, yet it must be remembered, that dyspepsia is but too often regarded as a mere stomach disorder, attended with more or less inconvenience or local pain. But dyspepsia has no exact regional boundaries. Its influence in producing or aiding tuberculous depositions is held within certain limits; the disorder so induced being an index of the blood changes resulting from the dyspepsia. The absence of any of the forms of dyspepsia, however, does not indicate any immunity from tubercle. Its deposition may result from *errors originating in the disturbed elective actions of the tissues themselves.* Tubercle may be thus evolved, and stored up.

Pulmonary consumption is regarded by many as a disease originating within the lungs themselves; but certainly by the profession it cannot be so viewed. The investigations of the blood tend to prove, that the practical starting-point of tuberculous disease of these organs lies in most cases in the imperfection of the digestive functions, and in the want of proper elaboration which the lymph and chyle undergo in the great laboratories of assimilation, viz.: the lacteals, mesenteric vessels and glands, and in the thoracic duct. The anterior disorders of the nervous system are not mentioned here, as they would lead into a discussion beyond our space.

Nor is consumption always to be set down to the ravages from tubercular deposit. We find many lungs on inspection full of cavities, and infiltrated with pus; from the *constitutional* exhaustion of which, death has supervened. Although this condition may be accompanied

with tubercles, here and there scattered through the lung tissue, yet they were comparatively innocent of any highly deleterious influence. It is in these cases that pneumonia, or local inflammation of certain circumscribed portions of the lungs, becomes the parent of so much evil. The portions so deranged in their nutrition break rapidly down, attended more or less by hæmorrhage, and pus-like expectoration, if an exit can be found; or with abscesses of various sizes, if the tubes are occluded. The fever and irregular chills are more early prominent than in true tubercular phthisis, whilst the loss of flesh and strength is due more to the wasting of the lung, and its consequent imperfection in the respiratory changes that should have been afforded the blood, *whereby other organs are depreciated*, from want of proper arterialization, than from any depravity sustained by the blood. Organic blood changes no doubt do take place, but the few scattered tubercles indicate the amount not to have been very serious. It is only by perversion of the normal nutrition of the lungs (in those previously healthy) that pneumonia becomes the parent of gross tubercle. Nor is the seat of the tubercle always the immediate *locale* of the forerunning inflammation. It may be more or less distant.

In other instances, however, a tuberculous exudation seems to be established, and becomes the inciter of pneumonia. The air-cells become choked, and inflammation succeeds in circumscribed portions. These may be near the pleural boundaries, especially towards the upper region of the lungs, or deeper in its substance. When in the first position, pleurisy is of frequent occurrence, the pain persisting a given time, and changing with any subsequent pleuritic disturbance. The risk of perforation, with consequent emphysema of local points, or of making a communication between the bronchial tubes and the pleural cavity, is always to be regarded as contingent. Generally, lymph is exuded on the pleura, and that portion is bound to the ribs by tough bands, or is firmly glued to the opposing surface.

This exhibit of tuberculous material within the air-cells sometimes appears to be an effort of nature to discharge the offensive matter, and, as seen to result in other organs engaged in vicarious excretion, inflammation arises, with consecutive structural changes. But, generally, the blood does not seem to have suffered primarily; a pulmonary catarrh has become more or less chronic, perhaps incident from measles, small-pox, scarlet fever, or other eruptive disease, and attended with a profuse blennorrhagic expectoration, which gradually becomes inspissated into an albumino-fibrinous material, somewhat representing the granular deposit of sthenic pneumonia, and which, by gradual ab-

sorption or drying up of the more watery portions, leaves a soft, cheesy, tuberculous matter. This may be thrown off by degenerating into pus, without increasing renewal, and with returning soundness to the pulmonary tissue; or it may remain within the cells, undergoing further tuberculous addition and degradation, and by its accumulative pressure destroy their walls. In this latter persistence of infiltrative deposits, the blood has probably assumed tubercular genetic changes. Rheumatism, and disease of the heart, which induces bronchial engorgement, are frequent antecedents of this catarrhal tuberculous state, and especially if conjoined to a scrofulous or syphilitic taint, from which the sub-mucous tissues are prone to derangement.

In the young especially, chronicity may not attend—but one tumultuous attack, ushered in with acute pneumonia, may cause the patient to succumb. Not unfrequently, in the chronic cases, the intestinal mucous membrane evidences, by a catarrhal secretion, its participation with the pulmonary disorder.

These cases resemble, but in many points differ from what is commonly called scrofulous consumption, in which the blood itself is the chief source of the disease. The mode of attack is also different. For the most part, in scrofulous phthisis, the disease is hereditary; its antecedents are of long establishment; its incurrence can generally be predicted; its precursors are more or less stealthy, and its cure, if possible, is only to be effected through the blood. In the other form, there need be no scrofulous blood condition. It is spontaneous, and not traceable to any family transmission. Its antecedents for the most part are sudden, or irregular, and it can be traced to some known local cause, such as pneumonia from exposure, &c. Its incurrence is not predicable; and its cure or eradication by topical remedies is more readily effected; the scrofulosis of the blood (if any has been superinduced) being temporary, attributable and alterable; as in general the digestive system has been but little deranged, or is amenable to treatment.

Although pulmonary consumption, in the pluarlity of cases, appears dependent on the insufficiency or imperfection of the oleaginous elements afforded the blood, yet it cannot be denied that it ensues in many other instances, where the fatty matters are in due quantity at least. In some, fatty liver attends, and the depreciation of adipose substance in the body is not remarkable. The deficiency of sugar, however, is marked.

These cases seem to depend on the surcharging of the blood with albumen, its conversion into fat by the liver, and its averseness to the

necessary metamorphosis into fibrin, by which the young growing tissues are afforded their basis of renewal. The lungs become more or less infiltrated with an albumino-tuberculous matter, whilst the true tissue degenerates, loses its normal character, liquefies into pus, or *becomes atrophied.* The expectoration consists of pus from the dissolved tissues, of the degenerated material of blasted renewal, and the softened tuberculous matter. The destruction of the lung is a steady process of disintegration. Persons affected with this form of consumption keep up a certain rotundity of outline, their muscles are weak and uncontractile, they are loosely put together, and in general they have a doughy look, although some retain their color in a most remarkable manner.

In the light or red haired, the superficial vessels of the integument and of the bronchial membranes are near the surface; they oxydize, as it were, more rapidly. Breaches of continuity easily take place; or rupture of vessels is easily induced by violent coughing or exertion. Hæmorrhage does not appear to injure, and in many it seems to afford relief. Being more sudden and profuse, the blood is apt to be thrown immediately off, the gravitation and the plugging up of the air-cells, by its clotting, being less frequent than in the dark-haired, torpid, and swarthy-complexioned. In these the *bronchial* tuberculous disturbance is greater. But the vessels do not lie so near the surface, and hæmorrhage is less frequent, whilst the nervous erythism is less active. As a general thing, they are more averse to cod-liver oil, or fat in any shape, preferring well-done meats, without gravies. The albuminous elements of the blood are not only defective in quality, but appear to be in too great quantity. The liver becomes fatty, with atrophy of its true tissue. This condition, however, belongs more to the general tuberculous dyscrasia, than to isolated pulmonary degradation. Fibrin is deficient for the purposes of re-formation of tissue.

We above stated, that fat possessed the property of rendering the digestion of the albuminous materials of the food more easy. But in the cases just cited, there is an over-introduction of albumen into the blood, and fat is instinctively avoided by the individual. The liver, it would seem, labored in the withdrawal of the excess of albumen, either by converting it into fat, or its proper tissue degenerates and atrophizes, whilst the albumino-fat is deposited, at the expense of its true tissue, and the sugar is reduced in quantity, for the combustion in the lung. The waste in these cases must be great, as the oxygen of the air consumes the tissue. Sometimes the conversion of albuminous

compounds into excess of sugar (independent of its production from any other source) intervenes, and the kidneys are called on, producing the diabetic condition, so frequently found alternating, or coincidental with pulmonary tuberculous disease. At times the insipid form of diabetes may be owing to the derangement, or over-introduction of albuminous materials into the blood. It must not be forgotten, that these elements going to the liver, are not the *perfected* ones existing in the blood. Certain changes have to be effected, and the *integrity* of the functions of this important organ is essential, not merely in the necessary elimination of the bile, but in the *vitalizing* property afforded the albumen, which is the true *pabulum* of the tissues.

Two conditions, at least, are necessary for normal reproduction, viz.: 1st. Purity of the blood, containing the *pabulum* of the structures; and 2nd. Integrity of elective action in the tissues to be reconstructed. Hence, unsoundness of organs may arise from a depraved state of the blood; and on the other hand, the blood may be changed from the healthy condition, by derangements originating in an organ itself. In this latter manner, disease may be engrafted on other, or distant portions, the destructive tendency being measured by the vital importance of the part secondarily affected. The changes that a diseased organ forces upon the blood have not been sufficiently studied. The so-called complications are generally viewed as being dependent on the same conditions that originated the attack. But this is not always true, as these complications differ in their exhibition, when the parts so included receive a similar impress from the exciting cause. Every healthy organ has to withdraw from the blood the elements of its own structure. It is not to be supposed that the blood, after it has nourished the kidneys, for example, is in the same vito-chemical condition as after it has performed the same assimilative function in the brain. The *non-extraction*, then, or the *undue withdrawal*, from the blood of its elements must derange its composition, by interfering more or less with every functional process. In addition to this, the mal-secretions tend to engender further depravities. Of these facts the physician should never lose sight. The original disease, or disorder, is to be discovered first, and then treated; the functional complications will take care of themselves, or be of easy regulation. This metamorphosing of the retained elements, which should have been otherwise appropriated, is a frequent source of disease. Albuminuria, diabetes, fatty degeneration of organs, tuberculous encroachments, &c., &c., are instances of this want of organic equilibrium.

The derangements of the nerves of organic life—the mechanics of the body—come in for a large share in the production of disease. There may be a morbid excess in the nervous action, by which more material is invited to the parts than can be worked off, producing interstitial hypertrophy, or changes of the nutrient exudations into abnormal products, or into infiltrations, which pass through various grades of degeneration down to pus, may ensue, whilst the natural tissue undergoes the atrophic process. At other times, however, the so invited elements do not undergo any inferior metamorphosis, but they are comodeled into true tissue, giving rise to "fibrillar hypertrophy," attended with exaggeration of function proper to the part.

This condition is seen in true fibrillar hypertrophy of the heart, where the impulse at the wrist, in many cases, fails to record the actual state of the system. The pulse is strong, may be frequent, from the increased irritability, whilst the general system is below par. The treatment, to be successful in these cases, must recognize these opposing states. Sedatives, topically applied, will serve to quell the heart's tumult, whilst tonics and nourishing diet are to be taken, to sustain the working powers of other organs, whose functions are essential to the life of the individual.

Lastly, a third condition may arise from these derangements of organic nerves. The normal tissue may be converted into false structure. It may be innocent as regards its influence; the disturbances created being more of impediment, than of vitiated function. Or, there may arise growths malignant to the surrounding parts and to life, the blood receiving those changes which are destructive to its integrity, and to the continued health of the different organs. The hypertrophies, dependent on dilated vascular supply, are sometimes consecutive to the increased organic nervous demand.

From these views, it would appear that consumption may be generated by errors of the nervous system, directly, or indirectly, affecting the harmonious co-relations of the blood and tissues. It certainly has followed from fright, from mental depression; from injuries embracing both, independent of any depravity that may arise from absorptions and disintegrating reactions of pus, or from obstructed nutrition, owing to the plugging up of the minute nutrient vessels by fibrin, or portions of detached fibrinous concretions, &c. How often has it followed grief, or unrequited love, or any unreconcilable disappointment, without apparent hindrance in its course of dissolution; unamenable to remedy, to change of climate, and apparently without much appreciable depravity of the blood! The moral causes being

persistent, the changes resulting to the local nervous system are also persistent; and thus structural alterations and refusals go on. They who have endeavored "to minister to a mind diseased," know the difficulty.

Accompanying pulmonary phthisis, and aiding its rapidity and its exhaustive progress, comsumption of the bowels stands prominently forward. The tuberculous ulcers may attack the ileum and colon, or they may extend upward to the stomach. The mesenteric glands become more or less tuberculous, and in many instances amongst children, (especially among the mulattoes,) these and other abdominal glands are completely ravaged by tubercular deposits. Thick, viscid discharges ensue from the whole mucous intestinal tract, and the acute softening is so great and sudden, especially in the stomach, that in one or two cases falling under my notice, suspicion of poisoning has been raised. If the disease continues for any length of time, the heart becomes changed in structure or size; dilatation, with general venous engorgement, may ensue, or the cavities may lessen, and be proportioned to the general deficit of blood in the whole system. At times, from the uncontractile condition of the right side of the heart, the venous accumulation is so excessive, that the frontal veins start like whip-cords, on the surface; whilst serous effusion pours into the ventricles of the brain, followed by more or less strabismus. Or other errors of motion or of sensation ensue, their permanency depending on the heart's condition and its capacity to react; or on the structural changes of the brain, softening of its substance not being an uncommon attendant. The colliquative diarrhœa, so frequent an attendant on the latter stages of consumption, is not always to be regarded as the *cause* of the rapid waste of strength, and lowering of the resisting power of the patient. Many times the diarrhœa is the mere index that waste *has* taken place. It tells that the organic forces of the system are too rapidly expending; that a species of putrescence has commenced in the structures, and in their albuminous supplies, which should have had vital resistance to perform their part longer; it proclaims too truly, that the breach is greater than the repair, and that the bridge of life is trembling and crumbling under the hastening footsteps of the self-armed soldiers of death. If these panic-bearers, these debauched partisans in the ranks of life, find no discharge, the contagion of their retention increases, and all resistance is broken down. Thus it is that the diarrhœa, so dreaded in phthisis, may become preservative under proper management.

Nor are "chronic diarrhœas," at times, to be viewed in any other

light. They may be preservative, although they may be exhausting; but exhaustion is better than death. The over-rapid waste of decaying structures must find an exit, if possible. The proper intestinal glands are called upon for excretive function. The hand of God placed these glands in their proper place, and endowed them with their depurating power; yet, His writing is ignored by some of the late fatuists in medicine; and the pent-up impurities from tissues, whose type-life has been spent, are allowed to collect in the blood, poisoning the very founts of recuperative effort.

From these views, a philosophy in treatment can be garnered. The *real* efficiency of remedies is to be seen. Astringents, as tannin, catechu, kino, &c., act by their chemico-mechanical properties of constricting the glandular exits. The propriety of their administration depends whether the irritation of these organs establish the severe drain on the system, or whether these glands perform their legitimate functions, in giving exit to these poisonous products of internal tissue waste. And the cause of the waste itself is also to be considered. It may be from the too rapid exercise of the reproductive forces, loading the blood with the debris of portions no longer useful, (and this is very rare;) or, it may result from their inefficiency, whereby the blood becomes surcharged with the blasted cells of abortive renewal. And this latter condition is frequent. Then, kino, nor tannin, nor any other astringent, is needed; but those remedies having organic, restraining, or supporting properties, are to be depended on. Not with the view of arresting the diarrhœa itself, but of *retarding the necessity* for tissue supply, and affording time proportionate to the inactivity of the remodeling power. Hence, opium does not act by any property of astringency in these cases; but through its organic, restrictive, or paralyzing power, by which the reproductive interchanges are modified. The same may be said of sugar of lead; it is an organic paralyzer, independent of its chemical action over the fluids.

Space is not given for further illustrations of these philosophies of treatment; the hint is sufficient. It is only through similar views that the obstructed streams of medicine can be permanently opened into the sea of science. Whenever this takes place, even the adventurous empiricist will be borne more safely upon the tide that sweeps through the true channel. The present disgraceful bandying of "pathies," whether Homœopathy, or its so-nicknamed Allopathy, will not serve to arm men—(and some of them really clever men on both sides)—against each other, to the detriment of their self-respect, of science, and of their patients particularly. These contendings must sooner

or later be harmonized, under the one flag of "rationalistic" medicine. Truth is gained by the study of nature, and not by creating a primer for her, with fables which have their sole foundation in imagination, and their belief in infancy or ignorance.

It may not be out of place to mention, that some forms of diarrhœa (more or less chronic) depend upon malarial poisoning of the blood, or perhaps more truly, of the nervous centres. The organic forces become deranged, and the blood is surcharged with the products of decomposition, or of retardation, to a vast amount. Diarrhœa becomes significant of the fact merely, but is not the disease. The amount of the poison is so great, or its power to impress the nervous system so violent and prostrative, that the blood may be arrested in its *own* renewals, or the structures may be lowered in their power to assimilate their normal constituents. Pallor, loss of flesh, and diarrhœa evidence these conditions, the latter being frequently preservative; or if not attending, life may be paralyzed in the cold grasp of death, with symptoms of uræmic or other blood-poisoning, from the retention of so much animal impurity. Although opium may retard tissue waste, or sugar of lead act in its twofold capacity of restraining organic activity, and constringing the outlets, still the zymotic cause has to be recognized; and quinine, chinoidine, and even arsenic, &c., have to be conjoined to effect a cure. Here the endermic application of these remedies over the spinal tract will serve most important ends. In almost all of these cases, the elaboration of albumen is excessive or imperfect: early decay is impregnated with it, and the tissues so formed have their early type-limit impressed on them. They soon decay, loading to excess the overburdened blood. Cannot the value of the peculiar properties of arsenic, of bichloride of mercury, and other remedies of this class, be seen; when their influence in *rendering the albumen less impressible*, and probably the evolution fibrin more perfect, is daily witnessed, not only in the living, but also in the dead structures? Do not certain surgeons practically find the value of these remedies, and style them, in minute doses, as tonics, in the leuco-phlegmatic or albumino-scrofulous? Is not the reason plain? And thus it is that, in proper cases, arsenic in minute doses becomes a life-giver; whilst in larger doses it is a destroyer, whose footsteps may be rapid or slow, and against whom the very tissues themselves are preserved as witnesses! It may open the door to death, but keeps back its dismal companion, decay.

We have already overrun our allotted space; but as the object of this paper was not to rehash views already promulgated, nor to re-

copy treatments tried, and found useful or useless, we have dilated on the physiological and pathological positions necessary to establish the grounds for a somewhat novel and apparently more rational application of remedial measures. It would seem reasonable that the internal administration of drugs has but a doubtful chance of reaching the ends desired, when the disturbances of the digestive organs are so great. The return to sound action in them must necessarily consume time, and time is not to be lost as regards the changes progressing in the chest. These are to be modified by such *direct* means as lie within our power—not through the route of the stomach and intestines—but through their superficies, and by local absorptional application to the laryngeal and bronchial membranes themselves.

When the errors of assimilation are either not great, or are those of impediment more than of destructive impairment, then the internal administration of remedial measures may be trustily conjoined. Many times the difficulties of the digestive organs are engrafted on deficiencies of arterialization from a disturbed condition of the lungs; and these cases certainly are not to be remedied by measures directed to the stomach, liver, or bowels. The defects within the chest are to be locally attended to, and the gastro-intestinal membranes are to be *kept for the purposes of nourishment*, and not for those of medication. Their restitution progresses with the benefits accruing in the lungs.

The same is seen in the easily examined disorders of the larynx and pharynx. Follicular depravities take place, and although they might be associated with disturbed gastric functions, still, the influence of the diseased secretions poured out by these glands upon the gastric membrane, or on the gastric juice, is such, that healthy digestion is destroyed, and the consecutive derangements arising from this induced condition are but too frequently viewed as the causes of the subjective disorder. But the fallacy of such a view is to be exposed, by the return to health being effected by topical medication to the diseased surfaces, without a drop of medicine being swallowed. The cases of the so-called consumption of the larnyx, for the most part, commence in this way. In the previously healthy, tubercule may result from these digestive depreciations. In the scrofulous or blood disordered, the proclivity to its exhibition is hastened. The depositions of tubercle are within the lung, rarely in the larnyx, although tuberculous degeneration may ensue in the small bronchial tubes.

Some of the most aggravated cases of dyspepsia falling under my care have been entirely recovered by topical application to the throat surfaces. The ulcerations of the bronchial and exposed

lung tissues are likewise amenable to local treatments, and their vast superficial expansion is to be employed for remedial purposes. Blood changes, diseases, nervous impressibilities, whether sedative or stimulant, are daily witnessed from the inhalation of zymotic vapors, mephitic or anæsthetic gases; whilst the pure air of the prairie, or the chlorinated breezes from the sea, find their life-invigorating powers through the extended surfaces of respiration. An outward ulcer may be cured by internal administration of blood alteratives, when dependent on a constitutional affection; but a simple ulcer, originating by accident, or from some local imperfection of the remodeling process, is readily healed by direct application. You may attract the attention of a patient by internal remedies, but you cure the ulcer by local applications.

The analysis of the tissue of the lung differs somewhat from that of muscle, inasmuch, that it affords oleic and margaric acids free and in combination with soda, and cerebric, or oleo-phosphoric acid, with a notable amount of cholesterine. The analysis of tubercle resembles that afforded by the parenchyma of the lung, excepting certain differences of proportion in the component principles. Chloride of sodium particularly is in excess in tuberculous matter, whilst the phosphate of lime is much smaller, (that is, in unchanged tubercle.) The amount of cholesterine by weight in tubercle is at least ten times greater than in healthy lung tissue. It is somewhat singular that an excess of this product should be found in so many grave diseases. Whether this substance, so rich in calorifiant principles—carbon and hydrogen—forms a cause of the deposition of tubercle, or whether it is merely retained, and accumulates by disengagement, from the blood supplying it normally to the tissues that have wasted or been metamorphosed, cannot now be discussed. It is worthy of remark, however, that this remarkable substance is also found in large excess in fatty liver, the so frequent attendant of pulmonary consumption. It mostly presents itself whenever oxygenation is deficient. But whether it collects because of the loss of the normal supply of oxygen, or whether it abounds in undue amount in the blood, even if the quantity of oxygen is normally afforded, are questions for further investigation. Generally, it is indicative of waste of brain and nerve tissue.

The analysis of tubercle differs in itself, according to its state, but not according to its situation. Certain modifications ensue between crude, cheesy, softened, and concreting tubercles. In crude tubercle, according to Boudet, the casein exists chiefly in an insoluble state, whilst in softened tubercle the casein is soluble from the developed alkali. In fatty

liver the saponifiable fats may be found twenty times greater in quantity than in the sound state, whilst the natural tissue falls to one-half its normal weight, attended with an enormous excess of cholesterine.

The length of this paper has already extended beyond the limits allowed. The physiological and pathological conditions have been sufficiently dwelt upon to indicate not only the basis of treatments, but the causes for the inadequacy so generally attending the administration of remedies. I have now only space to call the attention of the profession to those rational views as regards the eradication of the tuberculous dyscrasia, and the process of affording to the diseased lung those *nutrient elements which constitute their tissue in health, and which are defective or deficient in tubercular ravages.* These desired results are to be effected by internal administration through the digestive organs, and by inhalation, or direct absorption, or contact of the remedial and nutrient substances by the mucous membrane of the larynx and bronchial tubes, in conjunction with applications to the surface of the chest and abdomen. Nor are the nutrient elements alone to be afforded by direct inhalation; but those volatile remedial substances can be applied to the affected surfaces, together with liquid preparations gradually introduced within the cavity of the larynx, after tolerance has been established. The value attached to many fatty ointments is owing, in many instances, to the absolute nourishment afforded to the diseased surfaces, as the preparations mingled with the oily substances are sometimes inert or not absorbed. The exclusion of air from the surface of course has to be taken into consideration. Glycerine, independent of any other influence, becomes a valuable nutrient application to the ulcerous parts. Through frictional applications of nutrient substances, to the surface of the chest and abdomen, life has been supported in many exhausting diseases; and also, where there has been structural impediment to internal digestion. Cod-liver oil, diligently rubbed in, has proved in my hands, and in others, a most reliable method of support, and a means of affording to the blood and tissues the oleaginous materials so imperatively demanded in diseases of the lungs, mesenteric glands, &c. The stomach may have refused the administration of oils, or, from duodenal derangements, their absorption by the lacteals could not be attained, whereby the *enfilming* of the chyle corpuscle was arrested or rendered imperfect. In such cases the endermic method must be adopted, and will generally be found beneficial. By the direct inhalatory application of the volatile fatty matters, the exudative depositions of albumino-tuberculous matter within the air-cells are rendered in a condition more ready to be reabsorbed, or assimilated. By the vehicle of vapor, or

of spray, the substances entering not only into the composition of the lung and tissues of the blood, can be directly applied, but those preparations having a specific remedial purpose can be introduced. A great desideratum is also obtained by these methods—the stomach and whole intestinal tract is reserved for nutriment, and not deranged by uncertain medication. At all events, the internal administration of remedial agents can be lessened to tolerance, when the digestive organs are themselves disordered; whilst their labor for self-restoration is not impeded, or so much impaired, and the affected lung tissues lose no time in their acts of recuperation.

Climate-change for the consumptive has killed as many as it has cured. "To the South," has been the watchword cry. But the South is not all sunny and balmy. It, too, has its bleak, dry, or damp alternations. It has its oppressive days and its fitful night changes. Caution is lost sight of by the hoping patient. He is in the South, and what need is there for prudence? He leaves comforts in exchange for the mere necessaries of life; and is forced upon greater restriction as regards diet, excepting, perhaps, that of fruits. The social relations of home are broken up, or interfered with. There is more necessity for exertion, although indulgence is sought after; and though more rest may be obtained, there is less repose. Besides these drawbacks, there is an everlasting consciousness that he is there for health. From night till morning his cough and his complainings are re-echoed from some adjoining room or house, or reiterated by his like afflicted neighbor. For bronchitic cases, *where the nervous tension is too high*, the change to a warm climate will prove beneficial; but for the opposite conditions of relaxation and anæmic respiration, the rarefied and warmer air adds to the distress. There is a difference, also, as regards the wastage of moisture by the lung. Some exhale an enormous amount of vapor, whilst others throw off but little. In the former a warm, moist climate would serve to arrest the exhalation, whilst a dry, cold climate must tend to increase it. In the latter, the opposite results obtain. From practical experience, this difference between dry or moist atmosphere is known by the patient; and if not known, it can readily be made manifest, by experiment. As a general rule, I am more in the habit of advising tuberculous patients, requiring change, to seek a dry, uniform, northern climate, and especially if they require or find oleaginous substances to agree with them. In the southern latitudes, these oil matters, so essential with many, do not agree so well. The respiration is less frequent and deep; the relaxation extends to the remodeling process, and although the decay of

tissue may be retarded, yet the *rebuilding* of healthy structure does not progress. Even *cream*, which stands next to cod-liver oil as a tissue regenerator, cannot be well borne. With these, the warm vapors from the sugar-house agree best. *Their application is direct to the bronchial surfaces.* Many incur chills, and these are laid at the door of malarial infection. But, in reality, the chills are more often the precursors or attendants of tubercular softening, or of progressive structural declension. The table-lands of Mexico probably form the most healthful resort for the consumptive.

Remedies that restrain tissue waste, by affording to the inspired oxygen, carbon, hydrogen, or nitrogen, are valuable auxiliaries in the eradication or cure of tubercular phthisis. Hence tea, coffee, cream, &c., find advocates for their use. Other remedies, as arsenic, corrosive sublimate, creosote, naphtha, &c., that have the property of impressing upon albumen and its compounds a state of resistance to abnormal decay, become, in skillful hands, powerful abettors in restraining waste, and in promoting recuperative repair of tissue. Opium has also its place; its abuse should suggest its use. It becomes, under scientific direction, a boon, and not a bane. Its power to control the *necessity* for tissue supply, by restraining the activity of the assimilative processes; its stimulant effect, in certain doses, over the nerves of organic life; its secondary actions in producing cerebral congestion, by which not only the due pressure is maintained within the brain, when needed from anæmia, but by which rest may be obtained for its wearied functions;—these, and other benefits, give to opium a place of trust in the hands of the skilled rationalistic physician, unequaled by any other drug, but which are daily abused by ignorant empiricists, or the routine practitioner. Alcohol, in shape of brandy, rum, or whiskey, has its uses; the lungs of tuberculous drunkards proclaim in favor of its use, but not of its abuse. Both free carbon and hydrogen are afforded, in place of the elements of the wasting tissues being consumed by the inspired oxygen; whilst the albumen compounds are rendered less liable to premature putrescence. Whiskey from corn, or the Bourbon whiskey, is decidedly the best form of remedial supply, the contained fusil oil having a beneficial influence. Wines, containing a due proportion of alcohol, with phosphoric matter combined with lime, potash, &c., are also vehicles of support and recuperation; and especially during the disposition to the calcareous metamorphosis of tubercle, in which the phosphate and carbonate of lime, with more or less silex, and oxide of iron, play so notable a part. Certain spring waters, holding in solution the above elements,

as the Lebanon Spring water, have been found beneficial in this condition. Their inhalation will serve a better purpose towards local assimilation. The soluble salts, as the chloride of sodium, phosphate and sulphate of soda, are also portions of these concretions. The incineration of tubercle, on analysis, corresponds remarkably with that of the concretions.

The object of this paper is not to rehearse treatments already tried. Their road is known, and too well beaten. But it is to direct attention to a path whose windings have been only partially explored; and to explain, on the basis of rational science, the indications for remedial action, and to classify the agents with the ends desired—the how and the wherefore of modern therapeutics. We have not, then, redressed the meagre skeletons of wasted treatments, and flaunted them under their dominos before the world, nor embodied those palliatives so familiar to the profession, and so daily employed by the people. But the object has been to disrobe that scourge "to one-third of mankind" of its artificial terrors and its mysteries, that it should stand naked before all, that its make and proportions should be known. To do this, its footsteps of stealthy approach had to be traced through all the great avenues of life. Its dwelling-house within the chest had to be entered, where the robberies of the blood were deposited; or where, invited by other evil companions, it left the proceeds of its ravages, amidst the wreck of all that once was sound, but now tenanted by wasteful marauders. It has been shown that Life, sitting on its throne of harmonious organic relation, could find itself quietly or quickly undermined by the sappers, which might deposit their grains of destruction, or boldly issue forth, and cut off supply after supply, till the white flag of starvation was the only one of peace. It was also shown, that not through the broad conduits of renewal alone was this demon of human destruction to be tracked; but that, through the electric influences of the nervous system, impressions were conveyed, which caused the grief-bowed to bend yet more, or else made purity a battening residence of a vicious spirit, which left naught but blighted remains to tell of its vampire course.

From all this degradation a practical moral arose. It taught that early principles should be attended to; that the very organic alphabet in the mouth should be watched, lest an early error should ensue. How changes may be engrafted here and there, in the various passages of life, and the "cell" whose office it is to bear renewal and similitude to every portion of the body, should enfilm itself with delicate oil, that the lamp of life might be replenished, dispensing heat and re-

newed invitation to the chambers of the chest. It told how nature craved supply from the outer world, when the blood could not fulfill its function.

In summing up, we find:

1. That pulmonary consumption may be a disease originating in the blood; or in the tissue of the lung itself; or from deranged nervous actions.

2. That tubercle is a product, the witness of blasted "cell growth," originating from the imperfection of the nutrient materials; or from a disturbed elective action inherent to the tissues themselves.

3. That ravages similar to those effected by the pressure and offence of tubercle, may ensue, without being caused by the evolution of, although attended with, tubercle, in portions more or less distant.

4. That structural changes arise from the abnormal influences of the nervous system.

5. That in some phthisis is hereditary, and in others is self-induced.

6. That it may waste every fat-cell, without great attendant loss of strength; whilst at other times, fat is not so entirely consumed, as muscular fibre is degenerated, and rendered less contractile.

7. That it accompanies or alternates with fatty degeneration of the liver, and of other organs.

8. That it may be incurrent with albuminuria, diabetes, or that the eruptive diseases may be its developing point.

9. That pregnancy may afford a certain arrest in its progressive ravages; or, by increasing the albuminous composition of the blood, the liability to certain tuberculous dyscrasia might be rendered greater.

10. That the "colliquative" diarrhœa, attending tubercular phthisis, may be preservative.

11. That the enfilming with oil of the true chyle corpuscle is a most important step towards future assimilation.

12. That follicular laryngeal disease may be at the bottom of tubercular degenerations and disorders of the digestive system.

13. That the pulmonary and skin surfaces afford a vast channel for remedial application and nutrient supply.

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On the Formation of an Artificial Anus. By C. TH. MEIER, M.D., Surgeon to Bellevue Hospital.

[Read before the N. Y. Medico-Chirurgical College.]

On the 20th October, 1856, I saw, with Dr. Grevel, a male child born with an imperforate anus 48 hours before; the child was other-

wise well formed, but delicate and weak. On close examination, the whole pelvis was found to be very small. The space between the tubera ischii narrow, penis and scrotum in a position more backward than usual. A small dârk-colored line ran from the scrotum towards that portion of the perineum where the normal anus should be found, but not the slightest trace of this opening could be detected. The finger could be pressed high up without much resistance, the whole perineum yielding. The child had, according to the statement of the parents, passed natural urine. Although I urged that the operation should be made immediately, I had to put it off till the next morning, on account of the unwillingness of the parents.

21st.—I again saw the child with Dr. Grevel. Abdomen very tympanitic; the child cried continually; the perineum remained still unchanged, without resistance on pressure. It was now agreed to perform the operation for establishing an artificial anus in the perineum. The child was laid on a table, and a small silver catheter introduced into the bladder. No urine came out, although afterwards, during the progress of the operation, the finger could detect the presence of the instrument in the bladder. I then made a longitudinal incision from the scrotum to the os coccygis, which projected forward more than usual, cut through a layer of transversely running muscular fibres, and finally, through the pelvic fascia, always guided by the catheter in the bladder. In this way I penetrated to the depth of an inch and a half, without discovering the intestine. In proceeding further up, I made use only of the forefinger, the director or the handle of the scalpel, and kept near the os sacrum. At length I reached the promontorium, and could feel the end of my forefinger through the abdominal walls, as often as I pushed it forward above the pubis. Near the promontorium there was a soft body, which became resistant upon pressure over the abdomen. I took this body for the *cul-de-sac* of the intestine. Introducing an exploring trocar, nothing escaped through the canula, but after withdrawing the instrument a little meconium was detected at its point. Introducing the ordinary trocar for hydrocele, there followed a discharge of gas and meconium; injected warm water through the canula, which produced a discharge of a great deal of meconium, followed by a discharge of a liquid of a straw color, which had all the appearance of urine.

I renewed the injection of tepid water in the intestine, which was always followed by a discharge of meconium. I then introduced the forefinger, separated the intestine by the aid of the director from the promontorium and the posterior wall of the bladder, inserted two fine

and long double hooks in the gut, and proceeded by cautious traction to draw the intestine through the pelvis down to the perineum. Here I made an incision in the gut between the two hooks three-quarters of an inch in length, and by means of eight interrupted sutures united the borders of the incision of the intestine with the wound in the perineum, thus having completed the formation of an artificial anus at its normal place.

During the operation the child appeared at the point of death, but immediately after the discharge of meconium the abdomen became soft, and the little patient seemed to feel very easy.

22d.—Abdomen again tympanitic, although a sufficient defecation had taken place. The child discharges a clear urine, in a natural stream. Injection of tepid water into the intestine through a female catheter. Inflammatory reaction at the perineal wound.

23d.—No motion of the bowels. Injection of tepid water into the intestines through a gum-elastic catheter; discharge of light-colored fæces afterwards.

24th.—Pulse very feeble; the child cries continually, takes no nourishment; face sunken; abdomen very tympanitic; no motion of the bowels since yesterday. Discharge of urine through the urethra, then discharge of urine, dark-colored, from admixture with fæcal matter; gas escaped through the urethra; perineal wound less inflamed; sutures begin to loosen.

25th.—Child died at three o'clock, A. M. At our visit we found the diapers soiled with fæcal matter.

Post mortem examination refused.

There are many points of interest in this case.

1. There was not only an occlusion of the anus, but the whole rectum was wanting, and the *cul-de-sac* of the intestine was obviously formed by the termination of the sigmoid flexure.

2. There was evidently a free communication of the intestine with the bladder, since, after the formation of the perineal anus, a great portion of the fæcal matter found its way through the urethra, and afterwards urine came out through the urethra, mixed with fæcal matter.

3. The fact that muscular fibres were met with during the operation appears of great importance, since many surgeons are of the opinion that, in imperforate anus, where the rectum or the lower portion does not exist, the muscles also connected with it, as the levator ani and the sphincter, are deficient. If ever, in cases of deficiency of the rectum, the existence of the perineal muscles is a well-established fact,

the great advantage of the operation in the perineal region over that in the inguinal or lumbar region will in this respect be evident, as the functions of the artificial anus by means of the above-mentioned muscles will be more easily performed.

4. The perineum was found without resistance and yielding to the finger, the pelvis comparatively small, particularly in its antero-posterior diameter, the tubera ischii approaching each other more than usual. This observation in such cases of deficiency of the rectum has already been made by Rokitansky, and is therefore of great moment in regard to the diagnosis, as, under such circumstances, the surgeon must be prepared to meet with a deficiency of the whole rectum, or a portion of it.

5. The situation of the rectum as high up as the promontorium is unusual, and the possibility of drawing down the intestine such a distance, about three inches from the promontorium, was perhaps never before attempted. In the two cases of Amussat and Friedberg, where a similar operation was performed, the intestine was found at a distance of two inches.

Before entering into the details of the operation, I may be permitted to give a brief outline of the different pathological conditions met with in cases of imperforate anus:

1. Simple membranous occlusion of the anus.

2. The rectum, instead of opening at its natural situation, terminates with a small opening at another portion of the perineum, the scrotum, or the penis, at the sacral or the hypogastric region.

3. There is a natural anus, as a *cul-de-sac*, but separated from the rectum, and without communication with the intestine.

4. There is a deficiency of the whole rectum, or a portion of it. The rectum does not descend down as far as the perineum. In these cases we sometimes find an abnormal communication of the intestine with the urethra, bladder, or vagina.*

In regard to the operation to be performed in imperforate anus, I will omit here the simple proceedings necessary when there is simply membranous or cutaneous occlusion of the anus. But it is of more importance to consider those cases where the rectum or a portion of it is wanting, and where the *cul-de-sac* of the intestine terminates at a distance from the natural situation of the anus in the perineum. In these cases, which are not of very rare occurrence, most surgeons advise to make a longitudinal or crucial incision at the perineum, then to advance

* Von Ammon. Die angebornen chirurgischen Krankheiten des Menschen. Berlin, 1842.
Cruvelhier. Anatomie pathologie.

gradually with the knife to a depth of an inch and a half, or at most, two inches. If fluctuation can then be felt, the bistoury or a trocar is to be introduced, and the meconium removed; if not, the advice is to try dilatation by compressed sponge, to wait ten or twelve hours, and then to examine for fluctuation. In many cases, when the surgeon looks in vain for fluctuation, he is directed by authors to thrust the knife or trocar up to the sacral region, in the direction of the rectum. Should he fail to detect fluctuation or to open the intestine, another operation for establishing an artificial anus in the hypogastric or lumbar region is to be resorted to. This is generally the proceeding to which surgeons resort in regard to this very important congenital malformation, with the exception of M. J. Z. Amussat, who first gave the description of a successful operation for artificial anus in a new-born child, entirely different from the usual operation, and in many of the principal points similar to the proceeding which I have described.*

Let us see, first, what advantage we can expect from the above-mentioned operation. Let us examine whether those proceedings to open the rectum for the discharge of the meconium are sufficient.

In the first place, if at a certain distance the rectum is not found, and fluctuation is not detected, the trocar is pushed in in the direction of the rectum, it is by mere chance that it reaches it, and we are exposed to the danger of wounding the bladder or other organs.

If, on the other hand, the rectum be detected at the distance of one or two inches, and the trocar or bistoury be inserted, the meconium will pass out, but the fæcal matter will always afterwards come in contact with the surrounding tissues, and produce irritation and fatal consequences. The incision made in the intestine will also soon contract, and require constant dilatation. In fact, most all of the children operated upon in this manner die. Amussat, in a paper read before the Institut in 1835, recommended a different method for establishing an artificial anus, in which he had been successful. A child operated upon by this plan was still alive in 1855. The method he recommended was to make a kind of T incision in the perineal region, then to dissect the cellular tissue and the pelvic fascia until he reached the intestine; he then brought it down to the perineum, opened the rectum, and after the discharge of the meconium, attached the mucous membrane of the intestine to the borders of the perineal incision by

* Observation sur une opération d'anus artificiel pratiquée avec success par un nouveau procédé, par M. Amussat. Lue à l'Institut dans la Sèance du 2 Novembre, 1835.

means of interrupted sutures. In 1855, Dr. Friedberg, a surgeon in Berlin, published a case of imperforate anus operated upon successfully by a proceeding similar to that of Amussat.

In my case, differing from that of Amussat and Friedberg in regard to the great distance of the intestine, i. e., nearly three inches from the perineal wound, I followed in the operation the same principles laid down in Amussat's method, with some modifications, in regard to the incisions. Yet the case was not successful in its final result, not only on account of the great distance at which the intestine was situated from the perineum, but also, doubtless, on account of the free communication of the intestine with the bladder. These cases always terminate fatally.

Operation.—After the introduction of a small silver catheter, to be kept in the bladder as a guide during the operation, and, in female infants, of a good-sized probe in the vagina, a sufficiently long longitudinal incision is to be made in the median line of the perineum, beginning at the posterior portion of the scrotum; or, in female infants, behind the posterior commissure, and terminating at the os coccygis.* Then the incision is to be continued through the cellular tissue and the perineal muscles. The pelvic fascia is then incised; the finger and the handle of the scalpel will then be sufficient to clear the way along the os sacrum to the promontory. If the *cul-de-sac* is not discovered at its normal situation in the concavity of the os sacrum, we are then able to carry the finger in every direction, for the purpose of exploring the whole pelvis, and, aided by the catheter and pressure over the abdomen, to discover with certainty the fluctuation of the lower portion of the intestine, if it should happen that it is situated at some point of the anterior or any other portion of the pelvis, provided it has entered the pelvis at all. Should there still exist in the mind of the surgeon a doubt in regard to the fluctuation, the exploring trocar can be used. Being assured that he has discovered the *cul-de-sac* of the lower portion of the intestine, he begins to disengage it from cellular adhesions, mostly by means of his fingers, if it is high up; or he can use a pair of scissors or a scalpel, if it is not very distant. This being accomplished, he inserts two fine double hooks in the intestine, and draws it, or that portion of it that yields easiest, gradually down, separates it again from cellular or fibrous

* The T incision recommended by Amussat gives no more room than a long longitudinal one, and injures the perineal muscles, so necessary for the subsequent functions of the anus. In some cases, Amussat even removes a portion of the os coccygis. This is not necessary, as this bone is very movable.

adhesions, if necessary, until the intestine appears at the perineal wound; taking care to make the traction more on the posterior than anterior wall of the *cul-de-sac*. An incision of about three-fourths of an inch is then made in the intestine, between the two little hooks, the meconium is permitted to escape, and the mucous membrane of the intestine is attached very accurately, by a sufficient number of interrupted sutures, to the perineal wound, in such a manner that the fæcal matter cannot come in contact with the surface of the perineal wound, and prevent union by first intention. The remaining portion of the perineal wound is also to be united by a sufficient number of sutures.

These are, in general, the leading features of the operation which I would recommend in cases of imperforate anus of new-born children.

In those cases (*vide* No. 2 of the Pathological Conditions) where the rectum terminates, instead of at its natural situation, at another portion of the perineum, scrotum, &c., with an opening insufficient for the free discharge of the fæces, the same operation is to be performed, and the fistulous canal afterwards destroyed by cauterization or by excision.

In those cases, again, (*vide* No. 3,) where there exists a natural anus, with no communication with the rectum, a septum intervening, it appears advisable that the anal opening should be excised, and then the same surgical manœuvre is adopted as in ordinary cases.

This is not the place to go into details relative to the surgical proceedings resorted to in cases where the surgeon does not succeed in discovering and opening the rectum—I mean the operation for opening the ascending or descending colon. The dangers of these operations are so great, the success so very doubtful, and often the condition of the patient, even after a successful operation, so deplorable, that I consider it the duty of the surgeon to try every surgical means in his power to establish an artificial anus at its natural situation. Amussat's praiseworthy researches, and a few so-called successful operations for imperforate anus in the lumbar region,* cannot alter my opinion. His method to establish an artificial anus in the lumbar region was adopted in cases where he failed to form an artificial anus in the perineum, and with the view of opening the intestine without

* Trois Mémoires sur la possibilité d'établir un Anus Artificiel dans la Région Lombaire sans pénétrer dans le Péritoine. Paris, 1839, 1841, 1842.

injuring the peritoneum, and thus avoid one of the most important objections to this operation.

But anatomical researches have proved that, in new-born children, the peritoneum often covers the whole colon, even on its posterior wall, and leaves, therefore, a doubt as to the possibility of always opening the intestine without injuring the peritoneum. Besides the inconveniences of an artificial anus in the lumbar region—namely, prolapsus, subsequent contraction of the artificial anus by the cicatrix, deficiency of a muscular apparatus to regulate the functions of the artificial anus, &c.—the subsequent dangers are so great compared with the perineal operation, that I recommend the latter very strongly, in preference to any other. This opinion is supported by the fact, that in many instances, where the hypogastric or lumbar operation was performed after an unsuccessful trial in the perineal region, the *post-mortem* examination has evidently shown that the rectum could have been reached through the perineal incision, had the surgeon continued his search.

The conclusion I arrive at is, that, as the surgeon can in most cases find the end of the rectum in the pelvis, he has only to explore the pelvis carefully, and after discovering it, to endeavor to establish the anus at its normal situation, since any other method for an artificial anus in the abdominal or lumbar regions is attended with too many dangers, and must be considered justifiable as a last resource only, under two circumstances:

1. Where it is impossible to carry the intestine downward through the pelvis, on account of too strong adhesions, the separations of which would be injurious to the neighboring organs, and fatal in its consequences.

2. Where the rectum or the termination of the intestines cannot be discovered in the pelvic cavity.

These conditions of the intestine being the exception in most of the cases of imperforate anus, the surgeon should exert all his skill and perseverance to establish the artificial anus at its natural situation.

On the Use and the Abuse of the Iodide of Potassium, and other Articles of the Materia Medica. By BERNARD KELLY, M.D., Physician to the New York Dispensary.

The greater the good, the greater the probability of its being abused. When the old alchemists were in search of the philosopher's

stone, whereby they sapiently concluded they could convert all things into gold, whatever new substance they discovered in their philanthropic investigations, they soon endued with panaceal powers; hence the great celebrity which dawned upon Basil Valentine's anti-monastic metal—Stibium. This is but a solitary instance of what might be cited of the wonderful credulity which tinged all the scientific theories of the Middle Ages. The names which yet cling with inveterate tenacity to many of our officinal preparations, only mirror too faithfully the conceited efficacy imputed to them by the ancient physicians. Thus the terms, *arcanum duplicatum, lignum vitæ, elixir salutis, proprietatis, sal mirabile*, &c., &c., figure still on the pages of our pharmacopœias. The old Arabian and Greek pathologists seemed to be comparatively free from this pernicious tendency of ascribing mysterious powers to their remedies. Indeed, we do not know but that, in this respect, they would bear a very favorable comparison with men of the nineteenth century. The origin, and ultimate perfection of a science, often approximate in the principles which endue it with vitality; it is only in the intermediate stages that errors and false speculations distract investigators from the path which leads to just and legitimate conclusions. The works of Hippocrates contain most of the practical and important truths we find in modern medical authors.

It is curious to note, in the history of our profession, the conflicting shades of opinion which have obtained in all ages, and all climes, respecting the efficacy of the same medicinal agent in the same disease. To pass over examples of antiquity, and select those of comparatively recent date, colchicum is lauded by some to the stars, as a sovereign specific in gout and rheumatism, by others deemed completely inert. Conium, in the hands of Baron Störck, seldom or never failed to cure scirrhous and cancerous tumors, while others only recognize in it palliative properties. The Rochelle salt, in our own times, has acquired a world-wide reputation in the treatment of acute arthritic affections, its use, in such cases, being predicated by the coexistence of uric acid in the urine, which it is said to neutralize and render alkaline; but rheumatism, unfortunately, is not the only disease in which a deficiency of urea and an excess of uric acid are discovered, the same thing being found in all pathological conditions in which the equilibrium between the respiration and circulation is disturbed. Thus, uric acid predominates in the urine in all fevers and inflammations; more especially in pleuritis and pneumonia; the effete nitrogenous matter of the system not being duly oxydized, and converted into urea. So that, if the sal rochelle prove curative in rheumatism, it is

not because it changes an effect, not a cause of the disease, but in all probability, because it allays the inflammatory excitement by its refrigerant and purgative properties. As far as we have seen its efficacy in this complaint, we cannot say but that the sulphate of magnesia, or tartrate of antimony, would prove equally, if not more curative.

Either medicines vary in their action at different epochs; or diseases change their types, and grow unaccountably rebellious; or physicians err egregiously in their diagnosis; else why this discrepancy of opinion with respect to the virtues of therapeutic agents? Who has not heard of the magic power of sarsaparilla in annihilating syphilis, and all its scaly progeny? Aladin and his wonderful lamp never performed such feats, wrought such miracles. Its fame resounded throughout the length and breadth of the land; gorgeous palaces reared their proud summits beneath the touch of its golden wand; fierce litigations raged on its head; yet to-day, there is not one, even among the lowliest, to do it honor. *Sic transit gloria mundi!* For the last twenty years, medicine has made gigantic strides towards the goal of perfection, by reason of the light which the lamp of physiology has thrown upon the field of its research. Pathology, as revealed by *post-mortem* evidence, has done a vast deal. But, unhappily, there still exists an irresistible proclivity in the minds of physicians to relapse into the path trodden by countless generations, and consecrated by antiquity. The stale empiric leaven of the Middle Ages is not yet entirely expunged. Calomel, that *fair, dark* remedy, that two-edged sword, though not quite as fashionable now-a-days as some years ago, is still applied heroically in thousands of cases, where the resources of nature alone are fully adequate to the task. There is little sense, one would imagine, in killing a mosquito with a sledge-hammer; but there is still less sense, and far worse judgment, in using this formidable preparation in the treatment of diseases, where, at most, the spts. of mindererus, or nitre, or ipecac. would be indicated.

This brings us to speak of an article of the Materia Medica which surpasses in celebrity, and the extensive range of its action, any therapeutic agent of ancient or modern times—we allude to the iodide of potassium. Had this substance fallen in the way of the inquisitive alchemists, they would have doubtless hailed it with the same frantic demonstrations of delight, as did that philosopher of old, who, when the solution to an important question in physics, which had long remained enshrouded in the darkest mystery, burst for the first time upon his mental vision, ran naked through the streets, regardless of modesty and everything around him, shouting out *Eureka! Eureka!* Now, the iodide of potassium, though a most valuable remedy, is not

by any means the specific which the laudations and practice of many would lead us to suppose. We have seen it given with a good deal of confidence, on the part of the physician, to patients laboring under confirmed cardiac disease, with mitral or aortic regurgitation, where an anæmic countenance and œdematous limbs seemed to crave anxiously for iron; not that the latter would reach the disease any more than the iodide, but the distressing symptoms of regurgitation and anasarca are very sensibly relieved under its judicious use. Molasses, or any other viscid substance, flows through a narrow aperture, when propelled, as the blood is, by a sudden, energetic, and brisk impulse, almost with the same rapidity as water under the same circumstances; whereas, when this power is removed, and both fluids are left to the agency of their own specific weight, there is a vast difference in the speed with which each accomplishes its reflux—the water, though much the lighter runner, being *facile princeps* in the race. In no other way can we account for the amelioration of the symptoms in cardiac disease, especially when complicated with anæmia, than by a knowledge of the important fact that the blood acquires a greater degree of consistence and viscidity under the use of chalybeates, and consequently prevents more effectually its *liquor sanguinis* from filtering through the coats of the vessels, or promotes its absorption, if already effused, on the principle of *exosmosis* and *endosmosis*. The regurgitation is also, for the same reasons, very materially diminished. The iodide, on the contrary, possesses the remarkable property of attenuating the blood, thereby increasing the reflux current, and the tendency to dropsical accumulations—the very accidents we desire most anxiously to ward off. To be sure, under certain circumstances, it removes serous effusions by the action of its diuretic property, but this rule applies almost universally in local inflammations, and never in dropsies complicated with anæmia and dependent upon organic cardiac disease. Not by any means the most trivial abuse of this medicine is its wanton and indiscriminate employment in all stages and forms of syphilis. From the soft, non-infecting sore to the indurated chancre, from the serpigenous to the phagadenic, from the primary to the tertiary, and *quaternary*, if there be such a stage, it is used as the *sine quâ non*, the sheet-anchor upon which we are to rest all our safety and expectations.

Now, Ricord has shown (and in this consists, perhaps, his most imperishable claim to glory) that there is but one variety of the primary sore that requires any specific treatment; that the soft, the phagadenic, the serpigenous and gangrenous kinds, far from needing mercury

or the iodide of potassium, are, on the contrary, generally aggravated by their internal exhibition, and improve under the use of iron, quinine, and stimulating local applications. The only form of syphilis in which the iodide is admissible is the tertiary, for which it may be well termed a safe and certain specific. No doubt it relieves patients laboring under secondaries, but its action here is purely palliative; it soothes the rheumatic and nocturnal pains, without reaching their source; it beguiles the unhappy sufferer into the delusive conviction that he is fast getting well, while, in reality, it protracts and postpones his radical cure; in a word, it is totally incompetent, though possessing great virtues, to compete with the ruthless enemy which occupies the citadel. The disease must abate considerably in its virulence before we can rationally rely upon this agent as an antidote; hence its glorious achievements in all tertiary forms. But if the iodide prove an unequal match in combating syphilis in the earlier stages, there are other maladies over which it exercises powerful control.

We know of no better remedy in the subacute and chronic forms of articular rheumatism, when administered in considerable doses, say from 8 to 10 grs. for adults, and repeated every three or four hours. In the incipient stage of phthisis, before the tubercles are deposited to any great extent, or previous to their softening, it may be very advantageously used with the double view of arresting their further development and promoting their absorption. In the intermediate and last stages of the disease, it can never legitimately supersede the use of quinine, iron, and cod-liver oil. In chronic pleuritis and the gray hepatization of pneumonia there can scarcely be a more efficient therapeutic. It seems to act in such cases, not only as a diuretic, in removing serous and other abnormal effusions, but also as a powerful alterative, in changing the local morbid processes, by entering the circulation, and stimulating the inflamed capillaries to contraction, thus relieving the engorgement upon which the phlegmasia depends. In a word, it may be reliably given in all strumous, subacute, and chronic inflammations, wherever located, backed up by stimulating topical applications, when practicable, or not contra-indicated by the peculiarity of the case.

Memoir on Amyloid Corpuscles, existing as normal Products on the Surface of the Skin. By JULES LUYS.

In October, 1853, Virchow announced to the Academy of Sciences the existence in the human body of a peculiar substance, giving rise to

the same chemical reactions as vegetable cellulose; and in November, of the same year, he completed his discovery, in announcing that he met this substance in the brain and spinal column; and, furthermore, in a pathological condition in certain kinds of alteration of the spleen, known by the name of cirrhous degeneration of a colloid form, and that this substance could be detected by the action of iodine and sulphuric acid. In June, 1857, he published a new fact—the existence of amylaceous degeneration of several organs at the same time. It occurred in a woman who had died of Bright's disease. At the autopsy, there was found such a degeneration of both kidneys, the spleen and the liver. In the kidneys the small arteries and corpuscles exhibited this state, and in the liver the small vessels of the Malpighian *acini*. The vessels of the villous coat of the intestines seemed also to exhibit an amyloid substance. The uterine parenchyma had undergone the same kind of alteration, and the glossy muscular fibres were infiltrated with this substance. The fleshy mass of the heart presented also this appearance, and it was found in the nerves. This discovery was confirmed by Carter, of Edinburgh, (1855 and 1858,) who showed the diffusion of the substance through almost all the tissues of the human body. He had encountered the amyloid corpuscles in organs most diverse in character, in individuals that had succumbed to different diseases, and in animals in a condition of health; hence he ranked it among the normal productions of the organism, and considered that the presence of this substance was a condition of health, and possibly one of its necessities. Virchow considered it a pathological production. It will be readily seen how great a resemblance, according to Carter's notion, there is in the phenomena taking place in the animal and vegetable organisms.

M. Luys endeavors to prove that: 1. The cutaneous integument is endowed, in a physiological and pathological condition, with the property of producing amyloid corpuscles. (Carter had only noticed them in certain cases of ichthyosis, in the lower layers of the derm, and in this particular case considered them as connected with a morbid condition.) 2. The corpuscles present the reactions of amyloid substances.

1. When the surface of the skin, slightly moistened, is scraped with the back of a scalpel, it is surprising to find, amid the sebaceous matter removed, a large number of corpuscles with an appearance similar to granules of starch, and behaving like these, under the action of iodine. If the scraping is made somewhat deeper than the surface, they are still found. All the surface of the cutaneous integument is

endowed with this remarkable property. The regions where the amylaceous production is at its maximum seem to be the back of the neck and the scalp. The epithelial lamellæ, which the comb or brush removes, are literally covered with a large quantity of these very corpuscles.

An objection may be brought forward to the conclusions drawn from such examinations as to the source of the amyloid substances; it may be insisted upon that these have come from the atmosphere, with which the body is always in contact, or from starched linen clothing. To which Luys replies by stating, that although dust in the atmosphere may occasionally contain amyloid particles, yet the fact is by no means general; that the per centage of these particles under such circumstances is very small, and hence insufficient to explain the large quantity of amyloid matter found covering the epidermis, and even some distance below its surface. As to the amyloid substances being furnished by linen clothing—of course it could only have this origin where such clothing was starched, as the collars and bosoms of shirts, &c., in the fibres of which starch can always be found; but in these cases the particles vary notably from those met with on the surface of the skin; they are pale, almost colorless, and the most of them are partially disaggregated. Luys assured himself that the material from the head did not contain this form of amyloid particles. In order to make the proof most certain, he made the following experiment: After having carefully washed a portion of the surface of his arm with an alkaline solution, and with alcohol, he covered it with a watch-glass, leaving it in contact from twelve to fifteen hours. At the end of this time, on scraping the surface with the back of a scalpel, he obtained a quantity of pure sebaceous matter, white as white wax, which contained amyloid corpuscles. The experiment was performed on both arms and on the epigastric region.

To these last experiments it may be objected that some starch-particles, in the neighborhood of the watch-glass, had passed under it, and thus become a source of error. To meet this objection, he determined to examine some of the sebaceous matter of the skin of a fœtus at the moment of expulsion from the vulva. On analyzing the cutaneous sebaceous matter of the fœtus, he determined the presence *there* of the amyloid matter, less abundant, it is true, than in the adult, but still in sufficiently large quantity to afford the proper reactions for starch.

His final experiment was performed by dissecting off a piece of skin, isolating it from the subjacent tissues, and then making a transverse section with a razor that had been newly sharpened. When this sec-

tion was moistened with tincture of iodine, and placed under a microscope of 50 diameters, the amyloid corpuscles were perceptible *in situ*, in the thickness of the sub-cutaneous areolar tissue, in the dermis, and in the stratified layers of the epidermis.

In the examination of the properties of these bodies, those removed from the fœtus, at the instant of leaving the uterine cavity, were taken as typical. Examined by reflected light on a dark background, they seemed like points possessed of a shining, vitreous aspect; by refracted light they were yellowish, with dark outlines, and with considerable enlargement (500 diameters) they appeared pale and transparent. In size they vary between the 1-100 and 4-100 of a millimetre, and some rudimentary ones have been found, not even the 1-1,000 of a millimetre. They are not constant in form; those of the fœtus are compressible under the pressure of the cover-glass; can be flattened out, but nevertheless are readily removed from the fatty matters by which they are surrounded. Generally, they are discoidal, like sea-biscuits, depressed in the centre, and consequently slightly bi-concave; some exhibit on their surface fatty granules and other fissures. The edges are raised, and formed of concentric layers. A small linear depression, sometimes bifid or trifid, such as is observed on grains of starch, has not been recognized as a constant characteristic. They are homogeneous throughout, with clean fracture, and do not contain any cavity.

Chemical Characteristics.—They are insoluble in cold water, ether, absolute alcohol, whether warm or cold, oil of turpentine and ammonia. A solution of soda or potassa causes them to swell up, or bleaches them; iodine colors them instantly a dark violet, almost black; with sulphuric acid the color becomes a full blue, and it is not a rare circumstance to find, when one is examining matter from the skin, especially after having heated it, floating in the field of the microscope, blue, plaited membranous appearances, and irregular masses of a bluish substance. If, after being colored with iodine, they are heated in a little water, (care being taken so that they shall not be removed from the field of vision,) as the heat is increased they grow paler and disappear at ebullition, and as the temperature falls they reappear with their first coloration. On being subjected to dry heat, after being darkened by iodine, they become red like *terra de sienna*.

Berthelot, to whom some of the amyloid substance from the skin of the fœtus had been sent for examination, subjected it to the following treatment:

The sebaceous matter was treated with boiling ether, in order to remove the fatty substances; then with a weak solution of potassa,

(½ per cent.) to remove the albuminoid; the insoluble portion was then washed thoroughly with cold water and acetic acid, and dried in a vacuum. The examination of this substance afforded, with iodine alone and iodine and sulphuric acid together, the reactions already noticed. Some of the corpuscles retained their discoidal form; the greater portion had lost it, although there was obtained, by way of compensation, a notable quantity of blue amorphous granular matter, and of floating masses, also blue in color, having the appearance of plaited membranes.

These results seem to justify the conclusion that this substance, although it has not as yet furnished one indication of amylaceous matter in the formation of sugar, still presents wonderful analogies to vegetable starch.

CORPUSCLES OF THE SKIN.

1. *Physiological Condition.*—Luys has met them on the skin of a fœtus of five months, and on that of a woman of 80 years; in almost the same proportions on the skin of the negro and the white. In the adult they seem more firm, more resisting under the pressure of the cover-glass. Their concentric layers are more distinct; and mostly they are regularly discoidal, elevated at the edges with a circular ridge, depressed at the centre; such as present the bifid or trifid median incisions are very rare. They afford the same chemical reactions as those of the fœtus. There seems to be a tendency with certain of them (the oldest) to quit the circular form, in order to assume the angular.

2. *Pathological Condition.*—1. The formation of sebaceous matter is separate and distinct from that of these corpuscles; the first may fail, and the second continue very abundant.

2. In 30 patients, laboring under various diseases, Luys has found no disappearance of the amyloid corpuscles. There is a notable diminution of their quantity in cachexia, and diseases where the nutritive functions are diminished. Thus, in three cases of phthisis pulmonalis, with profuse and debilitating sweats; in two cases of cancer of the stomach, with considerable emaciation; in two cases of typhoid fever during convalescence; and in one case of rheumatism, the mean of the corpuscles collected on the back of the neck fell to 15, 20 and 22, in the preparation. In a female with albuminuria and anasarca, they were found abundantly, (60 to 65,) and coincided with an abundant production of sebaceous matter. On the other hand, in a man with albuminuria, (with dry, non-œdematous skin,) an almost equal number were found; these became blue under the action of iodine, those dark violet.

3. In two cases of diabetes, where there was no emaciation, and the digestive functions were regularly performed, a slight augmentation was met with—100–110.

4. A young boy of 16 years, with arrested physical development, so that he did not appear to be over 10 or 12, having a dry, icteric skin, was examined, and not only was a slight augmentation of these corpuscles observed, but one absolutely prodigious. The sebaceous matter was entirely wanting. At the autopsy, a scirrhous liver, with hypertrophy of the spleen, was discovered. The hepatic tissue exhibited these corpuscles; and they appeared to be distributed through the whole organ, without any special localization, in the corners of its cells.

5. As regards cutaneous pathology, Luys has, thus far, not found the corpuscles absolutely wanting anywhere. They have been found on the scalp in a child attacked with *Favus*, in the crusts of a syphilitic rupia, and in the interstices of the sound skin, on the skin of subjects laboring under malignant scrofulous affections, with or without induration, (and in this case the number of the corpuscles was very considerable.) It seemed that the incessant desquamation of the epidermis discovered them freely, and permitted more readily their being collected; and, in these cases, the specimens were of the minimum diameter. In a case of syphilitic psoriasis of the skin of the knee, with a white silvery appearance, but few were detected.

The question of the origin of these bodies is involved in doubt. Luys thinks that the primitive material exudes in the form of a granular liquid, and that when a nucleus is formed around it, the molecules, that come within its sphere of attraction, collect and arrange themselves in concentric layers.

CONCLUSIONS.—1. The skin, in a physiological condition, is the seat of an incessant production of amylaceous corpuscles, which are brought from its lower layers to the surface in the process of desquamation.

2. The corpuscles do not come from foreign bodies around, since they are found on the skin of the fœtus at the very moment it leaves the vulva.

3. The production exists anterior to birth, and it is continued up to very advanced age. Luys has even detected it on the dry and parchment-like skin of a woman 84 years old.

4. It seems to have some connection with the activity of organic renovation; it diminishes in cachexias, (phthisis, cancer of the stomach, &c.) It appeared to have gone beyond the physiological mean in two cases of *diabetes;* and in cirrhosis it attained a large figure, the liver itself containing corpuscles.

5. The physiological *rôle* of the corpuscles is still very obscure. Their solid nature and concentric layers indicate that they are formed *en place*, and successively, at the expense of something which escapes from the vessels in a liquid condition; and this something may be nothing else but the glucogenic material of Mons. Claude Bernard, which, incessantly pouring forth from the liver, as a focus of generation, is taken up by the blood and distributed through all the tissues of the organism. Exuded from vessels in contact with histological elements, it then assumes its proper form, and grows *in situ*, by the deposition of fresh molecules, and the formation of concentric layers.—*Gazette Médicale de Paris.* L. H. S.

Abstracts from French Medical Journals.

Two Cases of Death by Chloroform.—Two deaths have occurred from chloroform in the hospitals of Paris, in the hands of two surgeons not less eminent for their knowledge than for their prudence, and the precautions they are accustomed to employ in the administration of this agent.

The first case was a man, aged 44, strong and vigorous. It was proposed to reduce a luxation of the shoulder. From 15 to 20 grammes of the anæsthetic were employed. The chloroformization followed its usual course; first *excitation*, then *relaxation*. The pulse continued calm, as well as the breathing; the expression of countenance was not changed; nothing indicated an unfavorable result. Relaxation having been obtained, Richet proceeded with the reduction, having removed the chloroform from the patient. Suddenly, the reduction being accomplished, the pulse ceased on both sides; there were no longer precordial palpitations, although the respiration continued. This soon ceased; then Richet used artificial respiration. Three inspirations were obtained, but the patient succumbed, without any movements of the heart being re-established.

The second case was a girl, aged 7½ years, in the service of M. Marjolin. Four grammes of chloroform were employed. It was employed, as in the preceding case, in a bloodless operation—that for coxalgia, (Bonnet's treatment.) The child submitted readily to the inhalations. The first attempt was followed by cries from the child, who endeavored to place its free hand on the diseased hip. In a few seconds the anæsthetic sleep and relaxation were produced, although

the anæsthesia was not profound, since but few manipulations had been made when the cries and agitation were re-established. The surgeon ceased his operations, and suddenly the cries and muscular resistance ceased. Instinctively, and as if from a sad presentiment, Marjolin looked at the child. The physiognomy was strange; the head was turned towards the bolster; the countenance more highly colored than a few moments before; eyes fixed, and half closed. The pulse and heart being examined, no pulsations were perceived; three or four inspirations, becoming weaker and weaker, then took place; all relief proved useless; death was certain.

In these two cases the pulse and the heart ceased to furnish palpitations, although the respiration continued. There was no asphyxia, but a contrary effect in each case. In both the countenance, at the moment of death, preserved its color; and hence, death did not take place from syncope. How, then did, the chloroform act? Was it by direct action on the heart and the lungs, which were as if paralyzed by it? These questions have not as yet been settled.—*Journ. de Pharm.* L. H. S.

Toxic Effects of Absinthe.—For some years past the abuse of *absinthe* in France has been very great. In the March number of the *Jour. de Chim. Méd.*, we find the following notice of its effects:

Many artists and literary persons demand from absinthe a factitious excitement and inspiration, without thinking that each succeeding day, to obtain a like effect, requires a stronger dose than its predecessor; without thinking that by accustoming themselves to this easy exaltation of the faculties, coming whenever demanded, they are blunting their intellects and destroying their health.

The effects of this poison are terrible—overwhelming; an unconquerable enfeeblement and a continuous somnolence succeed febrile ecstasies, full of delirious dreams and raging inspirations. The eyes become dull, the hands tremulous; work is no longer possible without absinthe. Under the influence of renewed employment of the agent the reason totters, and a day arrives when the victim attains intoxication, no longer finding inspiration. He is then hopelessly lost; what had before been only a necessary accompaniment to labor, has now become a degrading passion; a daily habit, which he cannot throw off. The poet is dead—nothing remains but the drunkard. Like opium, absinthe has its fanatical friends and its victims. The writer specifies

two cases: one a romancist and another a poet, who have fallen victims to the use of this *liqueur*. L. H. S.

Peculiar Effects of Phosphorus.—At a session of the *Cercle de la Presse Scientifique*, in Paris, the Abbé Moignot directed attention to two facts, novel, and fit to figure in the pathogenesia of a poison, already charged with so many mischievous properties. Females, being *enceinte*, breathing air filled with phosphoric emanations in the establishments where matches are made, are sure to abort; and this result is so common and well known, that, in localities where the manufacture of matches engages a large number of workmen, the women profit by it to rid themselves of the product of conception. The abbé made this statement on the authority of a pious ecclesiastic, who guaranteed its authenticity. In men submitted to the same conditions, phosphorus vapors induce, after a little while, a vehement excitation of the generative functions. It is now left to the profession to verify the truth of these statements, full of interest, and susceptible, possibly, of being made useful, not only in prophylaxis, but also in therapeutics. Mons. Chevallier has commenced an investigation of the subject, which will be afforded the public as soon as any reliable results have been obtained.—*Jour. de Chim. Méd.*

Pommade de Jaser for Scabies.—According to M. Delaharpe, physician to the hospital at Lausanne, of all the pomades proposed for the treatment of itch, one of the most efficacious is that of Jaser. Mons. D. has employed it for a number of years, with constant success.

The following is the formula for its preparation:

Sulphur Lotum,	16	grammes.
Zinci sulphas,	6	"
Veratrum album, (pulv.,)	4	"
Sapo niger,	32	"
Axungia porci,	64	"
Tinct. ol. Carui,	1	gramme.

It will require about 250 grammes (about 8 ounces) of this pomade to effect a cure. A slight attack disappears after a single friction, preceded by a soap bath. When, however, the eruption is

the anæsthesia was not profound, since but few manipulations had been made when the cries and agitation were re-established. The surgeon ceased his operations, and suddenly the cries and muscular resistance ceased. Instinctively, and as if from a sad presentiment, Marjolin looked at the child. The physiognomy was strange; the head was turned towards the bolster; the countenance more highly colored than a few moments before; eyes fixed, and half closed. The pulse and heart being examined, no pulsations were perceived; three or four inspirations, becoming weaker and weaker, then took place; all relief proved useless; death was certain.

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It will require about 250 grammes (about 8 ounces) of this pomade to effect a cure. A slight attack disappears after a single friction, preceded by a soap bath. When, however, the eruption is

general, there should be two, three, or four applications made morning and evening.

In this preparation, the lard and the potassa-soap modify each other, although, by increasing the proportion of the soap, a risk would be incurred of making the pomade too irritating. The sulphate does not act here as a corrosive agent, as one might suppose, since it is entirely decomposed by the soap, resulting in the formation of a small quantity of sulphate of potash and sulphide of zinc. The powdered hellebore is necessarily the most active anti-psoric element, along with the tincture of caraway. Delaharpe believes that the proportions given above of the different constituents are the best adapted for the manufacture of the pomade.—*Journ. d'Anvers.*

L. H. S.

Chlohydric Acid in Cutaneous Affections. By M. KLETZINSKI.—From a great number of experiments made with different agents, it results, according to the author, that none provokes or stimulates the cutaneous perspiration more than chlohydric acid. A portion of the skin wet with this liquid perspires in the same time, and under the same circumstances, 27 to 30 per cent. more carbonic acid, and, what is remarkable, 7 to 12 per cent. less water, than the same portion not wet. The author concludes that,

1. The chlohydric acid re-establishes the circulation of the blood when it is periodically interrupted, and accelerates it. It consequently cures chilblains, and even prevents them.

2. It diminishes the uncomfortable sweatings of the hands and feet, and causes them to cease entirely after a long-continued use of it.

3. It is employed with success for the following diseases of the skin; *acne sebacea, nævi, condylomatas.*

4. It does not injure the skin in any way, if properly used; on the contrary, it softens it, and can be regarded as a real cosmetic.

When employed, it should contain neither iron nor chlorine. It is used as concentrated as the patient can bear without feeling a burning sensation, and after thirty to sixty seconds the wet part is washed at first with pure water, and then with soap and water. For application to very sensitive parts of the skin, the acid should be greatly diluted with glycerine, and neutralized in a very short time.—*Echo Médicale.*

PROCEEDINGS OF SOCIETIES.

American Medical Association.

LOUISVILLE, *May* 3, 1859.

The Twelfth Annual Meeting of the Association met at eleven o'clock, A. M., in Mozart Hall, the President, Dr. Harvey Lindsly, of the District of Columbia, in the chair, supported by Drs. W. L. Sutton, of Kentucky, Thomas O. Edwards, of Iowa, Josiah Crosby, of Massachusetts, and W. C. Warren, of North Carolina, as Vice-Presidents, with Drs. Alexander J. Semmes, of the District of Columbia, and S. M. Bemiss, of Kentucky, acting as Secretaries. Dr. Caspar Wister, of Pennsylvania, Treasurer, was also in attendance.

The President introduced the Rev. Mr. Robinson, of Louisville, who opened the proceedings with prayer.

Dr. Robert J. Breckinridge, chairman of the Committee of Arrangements, then welcomed the delegates to the city.

Prof. Joshua B. Flint, of Louisville, accompanied by Drs. Sutton, Chipley, Spilman, and Snead, then came forward, and in behalf of the "State Medical Society of Kentucky," bid the Association welcome to the medical jurisdiction of Kentucky.

The Secretary, Dr. Bemiss, then called the roll of members of the Association.

The President now announced a recess of fifteen minutes, to enable the various State delegations to choose their members for the Committee on Nominations.

Upon call to order, the following members were reported as the Nominating Committee:

New Hampshire, Dixi Crosby; Massachusetts, Solomon D. Townsend; Rhode Island, J. H. Eldridge; New York, D. M. Reese; New Jersey, A. N. Dougherty; Pennsylvania, R. K. Smith; Delaware, H. F. Askew; Maryland, G. W. Lawrence; District of Columbia, Cornelius Boyle; Virginia, L. S. Joynes; North Carolina, Edward Warren, Jr.; South Carolina, J. M. Gaston; Georgia, John W. Jones; Alabama, J. B. Coons; Louisiana, S. O. Scruggs; Tennessee, E. B. Haskins; Kentucky, D. D. Thomson; Ohio, George Fries; Indiana, J. H Brower; Michigan, William Brodie; Illinois, C. Goodbrake; Missouri, M. L. Linton; Iowa, D. L. McGugin; Wisconsin, C. B. Chapman; Army, C. S. Tripler.

The President then appointed the following gentlemen a committee on voluntary essays: Drs. L. P. Yandell of Kentucky, James Bryan of Philadelphia, and C. G. Comegys of Ohio.

Dr. R. J. Breckinridge, from the Committee of Arrangements, announced the hours of business from 9 A. M. to 1 P. M. and 3 P. M., until such hour as the Convention should adjourn upon resolution; which arrangement was adopted.

Dr. Harvey Lindsly, the President of the Association, then read his retiring address, which was listened to with marked attention, and was an eloquent tribute to the dignity of the medical profession and the importance of its improvements.

After he had concluded, Dr. L. A. Smith, of New Jersey, moved that the thanks of the Association be tendered to the President for his able and eloquent address, and it was ordered to be placed in the hands of the appropriate committee for publication, among the proceedings of the meeting.

Dr. Caspar Wister, chairman of the Committee on Publication, read the annual report, and on motion of Dr. Sayre, of New York, the following resolutions appended to it were unanimously adopted:

"*Resolved*, That hereafter every paper intended for publication in the Transactions must not only be placed in the hands of the Committee of Publication by the first of June, but it must also be so prepared as to require no material alteration or addition at the hands of the author.

"*Resolved*, That authors of papers be required to return their proofs within two weeks after their reception, otherwise they will be passed over and omitted from the volume."

Adjourned until 3 o'clock, P. M.

AFTERNOON SESSION.—Dr. W. L. Sutton, one of the Vice-Presidents, took the chair, in the absence of the President.

Dr. D. Meredith Reese, of New York, chairman of the Committee on Nominations, reported the following officers for the ensuing year:

President.—Henry Miller, of Kentucky.

Vice-Presidents.—H. F. Askew, Delaware; Chas. S. Tripler, U. S. Army; L. A. Smith, New Jersey; Calvin West, Indiana.

Treasurer.—Caspar Wister, Pennsylvania.

Secretary.—S. M. Bemiss, Kentucky.

Dr. Sayre moved the adoption of the report, which was unanimously agreed to.

Dr. Brainard, of Illinois, moved the appointment of a committee to conduct the newly-appointed officers to their respective chairs. The Acting President selected Drs. Brainard, of Illinois, Mattingly, of Kentucky, Sutton, of Indiana, McDowell, of Missouri, and R. J. Breckinridge, of Kentucky, and they accordingly performed the duties assigned to them.

The newly-elected President, on taking the chair, addressed the Convention in substance as follows:

Gentlemen of the American Medical Association—I am wholly at a loss to command language to express the deep sense of obligation put upon me by calling me to the Presidency of your Association. It is an honor any man may well be proud of; and although I admit in all sincerity that you might without difficulty have selected an individual more worthy the position, I may be allowed to say you could not have conferred it upon one who would prize it more highly or cherish it longer with the most grateful recollection. I do esteem it the greatest honor ever conferred upon me by the profession that I love, and to which I have devoted a long life; nay, more—it is the greatest honor that could be conferred upon any man by the medical or any other profession in this or any other country; for any decoration of honor or any mark of approbation conferred by a crowned head I should regard as a bauble in comparison. Who are you, gentlemen, when rightly considered? You are the rightful representatives of the great American Medical Profession—an army forty thousand strong, and a body of men, no matter what captious criticism may say in disparaging comparison with the European branch of the profession, in my humble judgment, far superior to the same number of medical men to be found in any quarter of the globe. Although, as a body, you may not be so learned, so critically and nicely framed in all the minutiæ of the profession, yet for strength, integrity, and precision in all the great principles guiding to a successful combat with disease, this body is equal, if not superior, to that of any kingdom of Continental Europe.

To be called to the Presidency of such a body of men, is, in my sober judgment, the greatest compliment that could be conferred on mortal man, provided that man is a devotee of medicine, who has given his whole mind, soul, heart, and strength individually to the profession, and has that high regard for it which will not suffer any less noble pursuit to interfere with the daily though laborious duties of the profession.

Coming so recently from a sick-bed, and still enfeebled in health, I beg to be excused from further remarks, and desire you to accept this brief and imperfect acknowledgment of the distinguished honor conferred upon me, instead of what, under other circumstances, I might be disposed to say.

Dr. R. J. Breckinridge moved that the thanks of the Association be tendered to the retiring officers for the faithful and assiduous man-

ner in which they have conducted the business committed to their charge, which was unanimously adopted.

Several names were now offered as candidates for membership, by invitation, when

Dr. T. O. Edwards moved that no person be admitted as a member by invitation, unless his good standing in the profession be vouched for by some member of the Association, which was adopted.

Dr. Eve moved a reconsideration of the motion by Dr. Edwards, which was carried; and upon motion of Dr. Edwards, all applications for membership, by invitation, were referred to the Committee of Arrangements and Credentials.

Dr. J. B. Lindsly, of Tennessee, offered the following:

"*Resolved*, That a committee of three be appointed by the chair to inquire into and report upon the propriety of dividing the Association into sections, for the purpose of performing such parts of its scientific labors as may relate to particular branches of medicine and surgery."

Dr. Brodie moved its reference to the Nominating Committee.

Dr. Brainard explained at some length the object of the resolution of inquiry, and urged its adoption, as the means of giving more effect and usefulness to the proceedings of the Association, the reports of which had heretofore gone out unmatured in consequence of the want of concentrated action.

A motion by Dr. Sayre to lay the motion on the table was negatived, and the motion of Dr. Lindsly was then adopted.

The Chair appointed as the committee: Dr. Lindsly, of Tenn.; Dr. Brainard, of Ill.; Dr. G. C. Blackman, of Ohio.

Dr. Davis moved that no person be permitted to speak more than twice on the same subject, or more than ten minutes at one time, except by consent of the Association, which was adopted.

The Standing Committee on Prize Essays was called on for their report, but without a response. This was also the case with the Committee on Medical Education. The Committee on Medical Literature had no report to present.

A letter from Dr. J. G. F. Holston, of Ohio, chairman of the Special Committee on the Microscope, was read, reporting progress, and begging a continuance for more extended investigation, which was referred to the Committee on Nominations.

A letter from Dr. Stephen Smith, of New York, from the Special Committee on Medical Jurisprudence, had the same reference.

The Special Committee on Quarantine was not ready to report.

Dr. Mattingly, of Kentucky, from the Special Committee on Diseases

and Mortality of Boarding Schools, asked a continuance until next year, in order to obtain further information requisite to the full investigation of the important subject This was referred to the Committee on Nominations.

The Special Committee on Surgical Operations for the Relief of Defective Vision, on Milk Sickness, and on the Blood Corpuscle, had the same reference.

A report from the Committee on Medical Ethics was read, laid on the table, and such portion of it as related to the action of the Dubuque Medical Society, in the case of an expelled member, was, on motion of Dr. T. O. Edwards, made the special order for to-morrow, at 12 o'clock, M.

Continuances were asked by the Committees on the Pons Varolii, Medulla Oblongata, and Spinal Marrow—their Pathology and Therapeutics; on American Medical Necrology; on the Hygienic Relations of Air, Food, and Water, the Natural and Artificial Causes of their Impurity, and the best Methods by which they can be made most effectually to contribute to the Public Health; on the Effect of the Virus of Rattlesnakes, &c., when introduced into the System of the Mammalia; on the Climate of the Pacific Coast, and its Modifying Influences upon Inflammatory Action and Diseases generally; on the Constitutional Origin of Local Diseases, and the Local Origin of Constitutional Diseases; on the Physiological Effects of the Hydro Carbons; on Epilepsy; on the Causes of the Impulse of the Heart, and the Agencies which influence it in Health and Disease; and on the best Substitute for Cinchona, and its Preparations, in the Treatment of Intermittent Fever, &c.; all of which were referred to the Committee on Nominations.

The Special Committee on Government Meteorological Reports made a report, written by Dr. R. H. Coolidge, of the U. S. Army, but read by Dr. Paul F. Eve, of Tennessee, which was referred to the Committee on Publication.

The committee, appointed in May, 1857, on Criminal Abortion, submitted a report, written by Dr. Storer, of Boston, which was read by Dr. Blatchford, of New York, and referred to the Committee on Publication. The following resolutions appended to this report were unanimously adopted:

"*Resolved*, That while physicians have long been united in condemning the act of producing abortion at every period of gestation, except as necessary for preserving the life of either mother or child, it has become the duty of this Association, in view of the prevalence and

increasing frequency of the crime, publicly to enter an earnest and solemn protest against such unwarrantable destruction of human life.

"*Resolved*, That in pursuance of the grand and noble calling we profess—the saving of human lives—and of the sacred responsibilities thereby devolving upon us, the Association present this subject to the attention of the several Legislative Assemblies of the Union, with the prayer that the laws by which the crime of procuring abortion is attempted to be controlled may be revised, and that such other action may be taken in the premises as they, in their wisdom, may deem necessary.

"*Resolved*, That the Association request the zealous co-operation of the various State Medical Societies in pressing the subject upon the Legislatures of their respective States, and that the President and Secretaries of the Association are hereby authorized to carry out by memorial these resolutions."

The Convention then adjourned till to-morrow morning at 9 o'clock.

WEDNESDAY, *May 4th*, 1859.

SECOND DAY.—The President, Dr. Miller, called the Association to order at 9 o'clock.

Dr. D. Meredith Reese, chairman of the Committee on Nominations, called attention to the fact that the committee could not act definitely until the place for next year's meeting should be designated. He stated also, that the Medical State Society of Connecticut had requested that an amendment to the Constitution, proposed two years since, should be taken from the table, relative to the time of meeting.

It was moved by Dr. Blatchford, and seconded by Dr. Sayre, that the amendment to the third article of the Constitution be taken up, which proposes to add after the words "first Tuesday in May," the words "or first Tuesday in June;" and after the words "shall be determined," the words "with the time of meeting."

The amendment was adopted by a constitutional vote.

Dr. D. M. Reese also stated that the Connecticut brethren had extended a kindly invitation to the Association to hold its next meeting at New Haven, through Dr. C. Hooker; which invitation was referred to the Committee on Nominations.

Dr. Reese also called attention to the necessity of some radical change in the mode of appointing committees to prepare treatises on scientific subjects to be reported at the annual meetings. It had been seen that, on yesterday, a large majority of the committees made no reports, and did not even see proper to send in any communication explanatory of delay. The difficulty heretofore has originated in the mode of selection adopted by the Nominating Committee. It has been customary for gentlemen to hand in their names and the proposed

subjects on slips of paper, and the committee, without further investigation, have so published in the annual reports. Thus it has happened that appointments have been most injudiciously made, and gentlemen, to whom a special duty has been assigned, have been found to know less of that than any other subject. He therefore hoped that no committee of last year would be reappointed or continued from which no report had been had, and no communication received.

On motion, the Nominating Committee was unanimously instructed to act upon the suggestions of the chairman, who also stated that there should be some definite expression of disapprobation as to the course of those gentlemen who had volunteered essays, and had their names reported in the newspapers and spread over the land, and then paid no further attention to the matter.

Dr. Flint, from the Committee on Prize Essays, begged leave to report that they received four dissertations in time for a careful and thorough examination, and two others, quite voluminous, only two days before the meeting of the Association. The latter we have felt constrained to exclude altogether from the competition of the present year, on account of the absolute impossibility of reading them with a critical purpose and effect. The others have been carefully examined by all the surviving members of the committee—one estimable associate, Dr. Evans, having been called from all his earthly labors before the active duties of the committee began.

More than one of the four essays we examined exhibited much labor, and a commendable scholarship in their preparation—are voluminous, and in some respects very meritorious papers; but, in the unanimous judgment of the committee, neither of them possesses the degree and species of merit which should entitle its author to the Association prize.

The committee beg leave futhermore to report, that in their opinion, and as the suggestion of their own recent experience, the Association should determine in more precise and formal manner than has yet been done, the terms and conditions of competition and of success in the contest for prizes, for the government alike of contestants and the committee of adjudication, and that a committee be now appointed to consider and report upon the subject.

Dr. Gordon, chairman of Committee on Etiology and Pathology of Cholera, made a partial report, and asked continuance of time.

On motion, the report was accepted, and referred to Committee on Publication, and the petition for continuance referred to Nominating Committee.

Dr. J. B. Lindsly, chairman of the committee appointed to inquire into the propriety of dividing the Association into sections, for the better performance of its work in considering the various branches of medicine and surgery, recommended the adoption of such a plan, as being indispensably necessary to making this body a working scientific association. They do not deem it necessary to enter into any argument in favor of this plan, it being the one already universally adopted by similar bodies. They would simply recommend, for the present, a division into the following sections, as being most suitable to facilitate the transaction of business, viz.:

1. Anatomy and Physiology. 2. Chemistry and Materia Medica. 3. Practical Medicine and Obstetrics. 4. Surgery.

The committee do not propose that this subdivision of labor shall in any manner interfere with the regular business of the Association as now conducted; but only that after having assembled each day in general session, each section shall meet separately for the purpose of hearing and discussing papers on such subjects as properly belong to them, and they therefore recommend that the Committee of Arrangements for the ensuing year be requested to provide suitable accommodations for the services of these sections, and that each of said sections shall be authorized to make such arrangements as may be required for the proper transaction of its business.

This report was considered and adopted, after a very able speech in its support by Dr. Davis.

Dr. J. W. Singleton, of Ky., moved the suspension of the rules for the introduction of the following:

"*Resolved*, That in the death of Dr. A. Evans, of Kentucky, the Association has lost one of its most manly and efficient members, and society a friend and benefactor."

The resolution was unanimously adopted.

Dr. W. L. Sutton, under the resolution appointing a committee on registration of births, marriages, &c., proposed a plan of general action, an abstract of which he read on motion of Dr. Gibbs, of S. C., and on motion of Dr. L. P. Yandell, the subject was referred to a committee, to report during the present session.

Drs. Sutton, J. B. Lindsly, W. R. Gibbs, James Bryan, Z. Pitcher, and G. C. Shattuck were appointed such committee.

Dr. Blatchford stated that he had received from Dr. Willard, Secretary of the New York State Medical Society, fifty volumes of their Transactions for 1858, for distribution to the medical press, the medical colleges, and all medical societies of the South, and sent with a request

for an interchange of civilities. Gentlemen present can be supplied by application to Dr. Bemiss; and if the number sent be not sufficient for the supply, they will be cheerfully forwarded to any gentleman by application to the Secretary, Dr. S. D. Willard, Albany, N. Y., the postage being included in the application, which is twenty-two cents.

A report from Dr. Thomas Logan, of California, on Medical Topography and Epidemics, was received, and referred to the Committee on Publication.

The chairman of the Committee on Voluntary Essays stated that he had received a paper on a case of extra-uterine fœtation from Dr. Enos Hoyt, of Transylvania, Mass., and another on a case of accidental poisoning by strychnine from Dr. Douglas Bly, of Rochester, N. Y. He also presented a very voluminous paper entitled "Observations on some of the Changes of the Solids and Fluids in Malarial Fever, by Joseph Jones, Professor of Medical Chemistry, in the Medical College of Georgia, at Augusta." By request, Prof. Jones gave a verbal abstract of his paper and an exposition of his theory, and on motion of Dr. D. W. Yandell the communication was referred to the Committee on Publication

Dr. D. W. Yandell announced that the following railroad companies had agreed to pass delegates to this Convention over their roads at half price: Pittsburg, Fort Wayne, and Chicago; Pennsylvania Central; Jeffersonville; New Albany and Salem; Louisville and Nashville, and Cleveland and Pittsburg.

On motion, a vote of thanks was tendered to these companies for their liberality.

Dr. J. B. Flint offered the following resolution:

"*Whereas*, Our brethren of Great Britain are engaged in erecting a monument to the memory of John Hunter, whose invaluable services in behalf of Physiology and Surgery are recognized and honored, as well on this side of the Atlantic as in Europe; and whereas, this Association, as the representatives of American Medicine, would rejoice in some suitable manner to participate in so grateful a testimonial of gratitude and respect: Therefore,

"*Resolved*, That a committee of three be appointed to consider in what manner this participation can best be effected, so as to be acceptable to our British brethren, and consistent with our means and opportunities of action, with instructions to report at the next annual meeting."

The resolution was adopted, and Drs. Flint, Bowditch, and Shattuck appointed as the committee.

Dr. Harvey Lindsly offered the following:

"*Whereas*, Parliamentary rules of order are numerous, complicated, sometimes obscure, and often inapplicable to such a body as the American Medical Association; and whereas, from the nature of the pursuits of medical men, they cannot be familiar with these rules: Therefore,

"*Resolved*, That a select committee of three members be appointed to prepare a system of rules for the government of this Association, as few in number, as concise and as perspicuous as possible, to be reported at the next annual meeting."

This resolution was adopted, and Drs. Lindsly, Comegys, and Blatchford appointed as the committee.

The paper of Dr. Bly, on Accidental Poisoning by Strychnine, was read by its author; and, as individual cases are not reported in the Transactions of the Association, (except as illustrations of principles,) thanks were returned for the communication, with a request that it be published in some medical journal.

An invitation from Grand Master Morris, of the Masons, was received, urging medical brethren to attend the Masonic Convention now in session in this city.

The Nominating Committee made the following report:

The next annual meeting to take place at New Haven, on the first Tuesday of June, 1860. Dr. Eli Ives is elected Junior Secretary.

Committee of Arrangements—Drs. Chas. Hooker, Stephen G. Hubbard, and Benjamin Silliman, Jr., with power to add to their numbers.

Committee on Prize Essays—Drs. Worthington Hooker, Conn.; G. C. Shattuck, Mass.; Usher Parsons, R. I.; P. A. Jewett, Conn., and John Knight, Conn.

Committee on Publication—Drs. F. G. Smith, Philadelphia, Pa.; Wister, do.; Bemiss, Louisville, Ky ; Ives, New Haven, Conn.; Hollingsworth, Philadelphia, Pa., and Askew, Wilmington, Del.

Committee on Medical Literature—Drs. Henry Campbell, Ga.; D. F. Wright, Tenn.; G. Wendell Holmes, Mass.; S. C. Armor, Ohio, and W. H. Byford, Ill.

Committee on Medical Education—Drs. D. M. Reese, N. Y.; W. R. Bowling, Tenn.; Chas. Fishback, Ind.; John Bell, Penn.; Z. Pitcher, Mich.

The following Special Committees were appointed:

On Morbus Coxarius, and Surgical Pathology of Articular Inflammation—Dr. Lewis A. Sayre, of New York.

On the Surgical Treatment of Strictures of the Urethra—Dr. James Bryan, of Philadelphia.

On Drainage and Sewerage of Large Cities, their Influence on Pub-

lic Health—Drs. A. J. Semmes, D. C., Chairman; Cornelius Boyle, and G. M. Dove.

On Puerperal Tetanus, its Statistics, Pathology, and Treatment—Dr. D. L. McGugin, of Keokuk, Iowa.

On Hospital Epidemics—Dr. R. K. Smith, of Philadelphia.

On Puerperal Fever—Dr. S. N. Green, of Stilesville, Ind.

On Anæmia and Chlorosis—Dr. H. P. Ayres, of Fort Wayne, Ind.

On Veratrum Viride—Dr. James B. McCaw, of Richmond, Va.

On Alcohol—Its Therapeutical Effects—Dr. J. R. W. Dunbar, of Baltimore, Md.

On Meteorology—Dr. J. G. Westmoreland, Atlanta, Ga.

On Milk Sickness—Dr. Robert Thompson, Columbus, Ohio.

On Manifestations of Disease of Nerve Centres—Dr. C. B. Chapman, Wisconsin.

On the Medical Topography of Iowa—Dr. T. O. Edwards, Iowa.

On Microscopic Observations on Cancer Cells—Dr. Geo. D. Norris, New Market, Ala.

On the Philosophy of Practical Medicine—Dr. James Graham, Cincinnati, Ohio.

On some of the Peculiarities of the North Pacific, and their Relations to Climate—Dr. Wm. H. Doughty, Ga.

The following Special Committees were continued or altered:

On Microscope—John C. Dalton, Jr., N. Y.; David Hutchinson, Ind.; A. R. Stout, Cal.; Calvin Ellis, Mass.; Christopher Johnson, Maryland.

On Diseases and Mortality of Boarding Schools—Dr. C. Mattingly, Ky., and Dixi Crosby, N. H.

On the Various Surgical Operations for the Relief of Defective Vision—Drs. M. A. Pallen, Mo.; T. J. Cogley, Ind., and W. Hunt, Penn.

On the Blood Corpuscle—Dr. A. Sager, Michigan.

On American Medical Necrology—Dr. C. C. Cox, Maryland.

On the Hygienic Relations of Air, Food, and Water, the natural and artificial causes of their impurity, and the best methods by which they can be made most effectually to contribute to the public health—Dr. C. C. Cox, Maryland.

On the Effect of Virus of Rattlesnakes, &c., when introduced into the System of Mammalia—Dr. A. S. Payne, Virginia.

On the Climate of the Pacific Coast, and its modifying Influences upon Inflammatory Action and Diseases generally—Dr. O. Harvey, California.

On the Constitutional Origin of Local Diseases and the Local Origin of Constitutional Diseases—Drs. W. H. McKee, North Carolina, and C. F. Heywood, New York.

On motion of Dr. Brodie, Dr. A. J. Semmes was requested to serve as Secretary *pro tem.* during the remainder of the session.

The Association took up the special order, being the report on Medical Ethics, to which had been referred the action of the Dubuque Medical Society, which, after debate, was laid over until 12 o'clock to-morrow.

On motion of Dr. H. F. Campbell, a section of meteorology, medical topography, and epidemic diseases, and of medical jurisprudence and hygiene, was added to those already adopted by this Association.

The Association then proceeded to consider and act upon amendments to the Constitution proposed at the last annual meeting, and laid over under the rules. The following amendment was adopted:

"*Resolved*, That the Constitution of this Association be so amended as to provide that no individual who shall be under sentence of expulsion or suspension from any State or local medical society, of which he may have been a member, shall be received as a delegate to this body, or be allowed any of the privileges of a member, until he shall have been relieved from said sentence by such State or local society."

The next amendment, lying over from last year, was the proposition of Dr. Kyle, of Ohio:

That the Constitution of the Association be so amended as to prohibit the admission as a delegate, or the recognition as a member, of any person who is not a graduate of some respectable medical college.

This amendment was rejected, but, on the question of reconsideration, a long and animated debate ensued. Without arriving at a vote, the Association adjourned.

AFTERNOON SESSION.—The Association was called to order at 3 P. M., Dr. M. F. Askew in the chair. The discussion on the amendment under consideration at the time of adjournment was renewed.

Dr. Kincaid moved a further amendment, to insert the word "hereafter" after "prohibiting."

The chair ruled the amendment out of order at the present stage, or until the Association decide upon the question of reconsideration.

After a long discussion, Dr. Davis, of Ind., moved to lay the motion to reconsider on the table, which was carried, 97 yeas, nays not counted; so the amendment stands registered.

The next proposed amendment to the Constitution was that suggested by the New Jersey Medical Society, asking for such changes

as would establish a Board of Censors in every judicial district of the Supreme Court, who should examine and grant diplomas to all proper members of the Association.

This was temporarily laid on the table, for Dr. Crosby to offer a report of the Medical Teachers' Convention, which met on Monday last. He strongly recommended a committee from this body to confer with the Teachers' Committee, and felt great confidence that something beneficial to medical education would be the effect of such conference.

Dr. Comegys moved the appointment of a committee of five to confer with the committee of Medical Teachers and report at the next annual meeting, provided that no medical teacher be selected on the part of this Association.

Dr. T. M. Blatchford, of New York, offered as a subtitute the following preamble and resolution:

"*Whereas*, Of all the subjects which can engage our attention in our associate capacity, that of Medical Education is paramount; and *Whereas*, harmony of action is essential to success in establishing definite qualifications entitling to admission in our ranks; and *Whereas*, nothing can be gained by hasty action in a matter so vital to our very existence, as a permanent Medical Institution: Therefore,

"*Resolved*, That further action be suspended for the present upon the subject of the resolutions offered at the last meeting of the Association by the chairman of the Special Committee on Medical Education, and that a committee, consisting of S. W. Butler, of Pennsylvania, L. A. Smith, of New Jersey, Dixi Crosby, of New Hampshire, C. A. Pope, of Mo., and T. Buckler, of Maryland, shall be appointed to confer with the committee appointed at the meeting of Medical Teachers, to report some plan for action at the next meeting of the Association."

This amendment was lost, and the original resolution adopted.

The resolutions from the New Jersey Medical Society were then taken from the table and referred to the Committee of Conference.

Dr. Davis offered a resolution instructing the same committee to confer with the State Medical Societies for the purpose of procuring more decisive and uniform action throughout the profession in carrying into effect the standard of preliminary education adopted by this Association, at its organization in 1847. This was carried.

Dr. Gibbs, from the committee to examine into a plan of uniform registration of births, marriages, and deaths, offered the following report:

They have given the same a careful consideration, and they unanimously recommend that the report be adopted, and referred to the Committee on Publication.

They also recommend that the same committee be continued, with

instructions to add to the report, in time for publication in the ensuing volume of Transactions, a form of registration law which may be likely to answer the requirements of the several States.

Dr. Sayre, of New York, offered the following:

"*Whereas*, The medical profession at large have an interest in the character and qualifications of those who are to be admitted as their associates in the profession: Therefore,

"*Resolved*, That each State Medical Society be requested to appoint annually two delegates for each college in that State, whose duty it shall be to attend the examinations of all candidates for graduation; and that the colleges be requested to permit such delegates to participate in the examination, and vote on the qualifications of all such candidates."

This was, on motion, referred to the Committee of Conference.

The paper of Dr. Jones, presented at the morning session, was taken from the Committee on Publication and referred to the Committee on Prize Essays.

Dr. Eve moved to record the name of Dr. Benj. W. Dudley, as a permanent member, which was adopted by a unanimous vote, the delegates all rising to their feet in token of respect.

Adjourned till to-morrow morning, at 9 o'clock.

THURSDAY, *May* 5, 1859.

The President called the Association to order at nine o'clock, and the reading of the minutes of yesterday was dispensed with.

The first business in order was an amendment to the Constitution, laid over from last year, and proposed by Dr. T. L. Mason, of New York, to insert in the first line of the second paragraph of Article II., after the words "shall receive the appointment from," the words "any medical society permanently organized in accordance with the laws regulating the practice of physic and surgery in the State in which they are situated, and consisting of physicians and surgeons regularly authorized to practice their profession." Also, to add to the sixth paragraph of the same article the words "but each permanent member of the first class designated in this plan of organization shall be entitled to a seat in this Association, on his presenting to this body a certificate of his good standing, signed by the Secretary of the society to which he may belong at the time of each annual meeting of this body."

Dr. Lyndon A. Smith, of New Jersey, said amendments to the Constitution should be adopted with care; and though, perhaps, that now proposed might be desirable, still, as Dr. Mason, who had proposed

it, was not present to explain his views, he moved that the subject be laid over until next year. This suggestion was adopted.

Another constitutional amendment, proposed by Dr. Henry Hartshorne, of Pennsylvania, and laid over from last year under the rules, provides to add to Article II. the words: "No one expelled from this Association shall at any time thereafter be received as a delegate or member, unless by a three-fourths vote of the members present at the meeting to which he is sent, or at which he is proposed."

This amendment was adopted.

Another amendment, proposed by J. Berrien Lindsly, of Tennessee, was called up, to omit in Article II. the words "medical colleges, hospitals, lunatic asylums, and other permanently organized medical institutions in good standing in the United States;" and also to omit the words: "The faculty of every regularly constituted medical college or chartered school of medicine shall have the privilege of sending two delegates. The professional staff of every chartered or municipal hospital containing a hundred inmates or more shall have the privilege of sending two delegates; and every other permanently organized medical institution of good standing shall have the privilege of sending one delegate."

This was laid on the table until the next annual meeting.

An invitation was received from Mons. Groux, requesting the delegates to meet him at the hall of the University at noon to-day, to witness experiments on his congenital fissure of the sternum, which was deferred until four o'clock this afternoon, as the Association had previously accepted the hospitality of Mr. and Mrs. Robert J. Ward at the former hour.

Dr. McDermott submitted the following resolutions:

"*Whereas*, A vast proportion of the disease and misery that afflict our race is caused by the excessive use of intoxicating liquors; and whereas, in the opinion of this Association, the evils of intoxication can be most effectually remedied by the establishment of Inebriate Asylums, wherein the victims of intemperance may be subjected to such restraints and treatment as shall effect a thorough reformation of their habits: Therefore,

"*Resolved*, That this Association recommend the establishment of inebriate asylums in the various States of the Union.

"*Resolved*, That the State and County Medical Societies, and all members of the medical profession, be requested to unite in diffusing among the people a better knowledge and appreciation of the beneficent purposes and important benefits that would be conferred upon society by the establishment of such asylums throughout the various sections of the country."

This resolution was referred to the mover, as a Special Committee, with a request that he would report thereon at the next meeting of the Association.

Dr. Shattuck offered the following, which was adopted:

"*Resolved*, That the committee appointed in May, 1857, on Criminal Abortion, be requested to continue their labors, and especially to take all measures necessary to carry into effect the resolutions reported by them on the first day of the meeting."

Dr. Yandell, from the Committee on Voluntary Essays, made a further report that a communication had been received from Dr. Langer, of Iowa, on Subcutaneous Injections as Remedials, which, on motion, the author read.

The essay was referred to the writer as a special committee, with the request that he would report further at the next annual meeting of the Association, and continue his investigations.

Invitations to visit the Insane Asylum and the Library and Museum of Transylvania University were received.

The President appointed as the Committee of Conference, to meet the committee from the Teachers' Convention, the following gentlemen: Drs. Blatchford, Troy, N. Y.; Condie, Philadelphia, Pa.; Bozeman, Montgomery, Ala.; Brodie, Detroit, Michigan; and Sneed, Frankfort, Ky.

Dr. D. Meredith Reese, from the Nominating Committee, made the following final report:

Special Committees continued.

On Quarantine.—Drs. D. D. Clark, Penn.; Snow, R. I.; Jewell, Penn.; Fenner, La.; and Houck, Md.

On Medical Ethics.—Drs. Schuck, Penn.; Murphy, Ohio; Linton, Mo.; Powell, Ga.; Eve, Tenn.

On Tracheotomy in Membranous Croup.—Dr. A. V. Dougherty, N. J.

On Mercurial Fumigation in Syphilis.—Dr. D. W. Yandell, Louisville, Ky.

On the Improvements in the Science and Art of Surgery, made during the last Half Century.—Dr. Jos. McDowell, St. Louis, Mo.

On the Cause and Increase of Crime, and its Mode of Punishment.—Dr. W. C. Sneed, Frankfort, Ky.

On the Education of Imbecile and Idiotic Children.—Dr. H. P. Ayres, Fort Wayne, Ind.

On the Uses and Abuses of the Speculum Uteri.—Dr. C. H. Spillman, of Kentucky.

On the Topography of Vermont.—Dr. Perkins, of Vermont.

On the Pons Varolii, &c.—Dr. S. B. Richardson, of Kentucky, and Dr. Fishback, of Indiana.

On the Physiological Effects of the Hydro-Carbons.—Dr. F. W. White, of Illinois.

On the Effect of the Perineal Operations for Urinary Calculi upon Procreation in the Male.—Dr. J. S. White, of Tennessee.

The paper from Dr. Ellis, of Massachusetts, on the subject, "Does the microscope enable us to make a positive diagnosis of cancer, and what, if any, are the sources of error?" was referred to the Special Committee on the Microscope, of which Dr. Dalton is chairman.

On motion, the report was adopted as a whole.

Honorary resolutions were passed to the memory of the following members of the Association, deceased: Dr. W. W. Boling, of Alabama; Dr. Thomas D. Mütter, of Penn.; Dr. P. C. Gaillard, of S. C.; Dr. Jabez G. Goble, of New Jersey; Dr. John K. Mitchell, of Tenn.

Dr. R. K. Smith, of Philadelphia, submitted the following:

"*Resolved*, That the death of Dr. John K. Mitchell, one of the members of this Association, has been to this body a loss keenly felt by every man who knew him. His eminence as a teacher, his varied acquirements in every department of learning, and his generous social qualities in every relation, endeared him to every member of the profession who had the pleasure of his personal acquaintance.

"*Resolved*, That the family be notified of the action of this Association."

Other more formal resolutions were offered, and feeling eulogies pronounced.

Dr. Sayre offered the following, which were adopted by acclamation:

"*Resolved*, That the thanks of the American Medical Association are eminently due and are hereby presented to the citizens of Louisville, Ky., for the princely hospitality publicly and privately extended to the members of this body during its present session.

"*Resolved*, That to the Committee of Arrangements and the profession of Louisville, generally, our thanks are due for their kind and assiduous attention to the Association, and for the hearty welcome with which they have greeted our convention in their flourishing city."

After the transaction of some other unimportant routine business,

On motion of Dr. Davis, the Association adjourned, to meet at New Haven, on the first Tuesday in June, 1860.

Convention of Medical Teachers.

MORNING SESSION.—At a meeting of the last National Medical Convention, held in Washington City, it was *Resolved*, That there should be a National Convention of the Teachers from the Medical Colleges in the United States, and that they should meet in the city of Louisville, Ky., the day before the meeting of the National Medical Convention. In accordance with this resolution, they met on Monday morning, May 2, 1859, at Mozart Hall.

After prayer by Rev. J. H. Heywood, Dr. Dixi Crosby, Professor of Surgery in Dartmouth College, N. H., was called to the chair, and Dr. George C. Blackman, of Ohio, appointed Secretary.

Dr. Crosby returned his thanks to the Convention in a neat and appropriate speech.

Dr. D. F. Wright offered the following resolution:

"*Resolved*, That all members of the Faculties of Medical Colleges, now present, shall be considered members of this Convention; but that when more than one from the same College is present, but one of them shall cast the vote of that institution."

A substitute was offered by Dr. Baker, of Ohio, that a committee of three, on credentials, be appointed by the chair. This substitute for the original resolution was then carried, and the chair appointed the following gentlemen to serve on that committee: Dr. Shattuck, from Massachusetts, Dr. Haskins, from Tennessee, and Dr. Baker, from Ohio.

The Convention then adjourned for thirty minutes, to allow the Committee on Credentials time to report. At the expiration of the time, the committee reported the following colleges as represented, with the gentlemen as delegates:

Dartmouth College, N. H.—Prof. Dixi Crosby. *Shelby Medical College, Tenn.*—Profs. E. B. Haskins and D. F. Wright. *Missouri Medical College.*—Prof. J. H. McDowell. *St. Louis Medical College.*—Prof. N. L. Linton. *Medical College of South Carolina.*—Prof. H. R. Frost. *Medical College of Georgia, Augusta.*—Prof. H. F. Campbell. *Medical Department of the University of Michigan.*—Prof. Moses Gunn. *University of Louisville, Medical Department.*—L. P. Yandell and L. Powell. *Cincinnati College of Medicine and Surgery.*—Prof. H. Baker. *Jefferson Medical College, Philadelphia.*—Profs. Robly Dunglison and Franklin Bache. *Lind University of Chicago.*—Prof. N. S. Davis. *Oglethorpe Medical College, Georgia.*—Prof. A. G. Thomas. *Medical College of Ohio.*—Prof. Geo. C. Blackman. *Kentucky School of Medicine.*—Profs. M. Goldsmith and Geo. W.

Bayless. *Iowa University.*—Prof. McGugin. *Medical College of Memphis.*—Prof. H. R. Robards. *Medical College of Virginia, Richmond.*—Profs. B. R. Welford and L. S. Joynes. *Atlanta Medical College, Georgia.*—Profs. J. G. Westmoreland and John W. Jones. *Medical Faculty of Harvard University at Boston.*—Prof. Geo. C. Shattuck. *Rush Medical College, Chicago, Ill.*—Profs. Daniel Brainard and Joseph W. Freer. *Western Reserve Medical College, Cleveland, Ohio.*—Prof. G. C. C. Weber.

On motion, the report was received, and the committee allowed to report further the names of delegates during the day.

The next business in order was the election of officers for the permanent organization of the Convention

On motion, the officers of the preliminary meeting were declared elected.

Prof. Crosby, in taking his seat as President, said the Convention had derived one advantage from the re-election of the present officers, as they were spared being inflicted with additional speeches of thanks. He concluded by saying that, unless changed by the Convention, he had the authority to make rules for conducting business. He therefore ruled that no member shall speak longer than ten minutes, nor more than twice on the same subject.

A motion was offered by Dr. D F. Wright, of Tenn., allowing all persons present from the different Medical Colleges to sit as members of this Convention. This was amended by Dr. Davis, of Chicago, by adding that no college should be allowed more than one vote on any proposition. This was carried.

Dr. Davis, of Ills., offered a resolution authorizing the appointment of a committee of five, as a Business Committee. This being carried, the President appointed the following gentlemen: Drs. Davis, of Ills., Gunn, of Michigan, Frost, of S. C., Shattuck, of Mass., and Yandell, of Louisville, Ky.

The Convention then adjourned for thirty minutes, to allow the committee time to prepare business.

At the expiration of the time, the committee reported six resolutions, which were accepted from the committee, and were, on motion, brought up in order. The following are the resolutions:

"*Resolved*, That this Convention recognize the great advantages to be derived from the action of the American Medical Association in prescribing the terms and conditions on which medical degrees shall be conferred and licenses to practice medicine shall be granted, and that any expression of opinion as to methods or periods of instruction

from the American Medical Association should be received with deference and respect, and that all pains should be taken to enforce any rules or regulations recommended by that body.

"*Resolved*, That this Convention earnestly recommends the American Medical Association to adopt such measures as will secure the efficient practical enforcement of the standard of the preliminary education, adopted at its organization in May, 1847, and that the Medical Colleges will cheerfully receive and record the certificates alluded to in said standard, whenever the profession generally, and the preceptors, will see that students are properly supplied with them.

"*Resolved*, That no Medical College should allow any term of practice to be a substitute for one course of lectures in the requisitions for graduation.

"*Resolved*, That hospital clinical instruction constitutes a necessary part of medical education, and that every candidate for the degree of Doctor of Medicine should be required to have attended such instruction regularly for a period of not less than *five months*, during the last year of his period of pupilage.

"*Resolved*, That every Medical College should rigidly enforce the rule requiring three full years of medical study before graduation, and that the diploma of no Medical College shall be recognized which is known to violate this rule."

The first resolution created some degree of excitement, and provoked considerable debate, when the Convention adjourned until three o'clock.

AFTERNOON SESSION.—The debate still continued on the first resolution, as reported in the forenoon. Dr. Bayless, who had the floor at the time of adjournment, offered the following amendments: to substitute, in the fourth line, the word "recommended" for "prescribe," and all after the words "deference and respect" be stricken out.

The debate on this resolution still continued warm, most of the gentlemen participating, when Dr. Joynes offered the following as a substitute:

"*Whereas*, It appears that a large portion of the Medical Colleges of the United States are unrepresented in this Convention; that no changes in the present system of education can be effected unless adopted by the schools generally:

"*Resolved*, That it is inexpedient at this time to take any action upon the propositions contained in the report presented by the Special Committee on Medical Education at the last meeting of the American Medical Association.

"*Resolved*, That with the view of obtaining a more general union in counsel and action upon this important subject, this Convention do now adjourn, to meet again on the day preceding the next annual meeting of the Medical Association, and at the place which may be agreed upon for such meeting, and that the several Medical Colleges

in the United States be requested to appoint each a delegate to such adjourned meeting of this Convention."

An amendment was offered by Dr. Wright, by adding another resolution to the effect that a committee be appointed to examine the different propositions offered. The vote of the Colleges being called on this resolution, the vote stood ten for the substitute and nine against.

The following gentlemen were appointed by the chair to serve on that committee: Dr. L. P. Yandell, of Louisville; Dr. G. Shattuck, of Massachusetts; Dr. G. C. Blackman, of Ohio; H. F. Campbell, of Georgia; Dr. M. Gunn, of Michigan.

The meeting was then adjourned.

SELECTIONS.

Hypophosphite of Quinine.—A New Remedy proposed by J. Lawrence Smith, M.D., Professor of Chemistry, University of Louisville.

The recent recommendation by Dr. Churchill, of the use of the hypophosphites in the treatment of phthisis, is now undergoing a general test by the medical profession; and so far as reported upon, there appear to be different opinions in regard to their efficacy. Some speaking of them with much praise, while others see but little benefit from their use. In one thing all agree—that no injurious effect arises from their administration.

From my own observation and inquiry, patients using the hypophosphites, either in their solid form or their syrup or glycerole, have experienced marked relief from many of the annoying symptoms attendant upon phthisis.

The special object of this note is to bring to the attention of the medical profession a new combination of hypophosphorous acid, which I have lately had made at the Louisville Chemical Works, namely, the *hypophosphite of quinine.*

It was first made by adding an excess of recently precipitated quinine to a hot solution of hypophosphorous acid, and on cooling, the salt crystallizes out in beautiful silky tufts, which, when dry and broken up, resemble asbestus in appearance. The method adopted and proposed for making it on a large scale is by double decomposition; using the sulphate of quinine and the hypophosphite of baryta, the operation must be conducted so that there shall be no excess of either salt in the solution; the solution is filtered from the sulphate of baryta, concentrated and allowed to crystallize, which it does in the manner already mentioned.

The salt thus obtained is in delicate fibrous crystals, soft to the touch; they are of a beautiful silky lustre, very soluble in hot water; one ounce of cold water at 60° Fahr. dissolves 8 grains of the salt. When heated, it loses its water at about 230°, and at about 300° it turns brown and melts.

Proposed Uses.—If the preparations of hypophosphorous acid are useful in phthisis and analogous diseases, then its combination with quinine must be beneficial in those phases of these diseases where quinine is at all recommended. I would therefore suggest its use in the hectic fever of phthisis; also as a tonic in the same disease; also in the various forms of cachexy where quinine is used.

Nor ought its use to stop here, for owing to its solubility in water, it can be readily administered in that menstruum, (say 5 grains to the ounce of water,) thus becoming useful for children, and also in compounding, where the presence of an acid is objectionable, as is now necessary in dissolving the sulphate. In the form of pill it would be more soluble in the stomach than the sulphate.

With these few hints I leave the article to the medical profession to be fairly tried, feeling confident that its solubility alone will be sufficient to make it an important addition to our materia medica.—*Louisville Med. News.*

On the Treatment of Hooping-Cough by Diluted Nitric Acid. By JOHN ATCHERLEY, M.R.C.S., Eng.

I wish to direct the attention of the profession to the diluted nitric acid in the treatment of hooping-cough. It has already been employed in hooping-cough to some extent, and was first recommended some years ago, by Dr. Arnold, of Montreal.

Having had abundant opportunities during the last two years of testing its efficacy, I may be permitted to speak with some degree of confidence as to its value. I have confined myself exclusively to its use in every case I have had to treat throughout that period, and I can affirm that as the ordinary duration of hooping-cough has been computed to average ten weeks, in defiance of every method of treatment that had hitherto been adopted, the diluted nitric acid effects its removal in less than three weeks, except in cases where its course has been interrupted by some serious complications

Any medicine capable of abridging the duration of a disease whose fatality is in proportion to its continuance, must be of incalculable value; and I am convinced that when it becomes more generally used, it will meet with the concurrence of the profession, and will hold a high place, and be the cardinal remedy, if not supersede all other medicines in hooping-cough.

In prescribing the diluted nitric acid, I usually begin with five-minim doses every three hours, say for a child six months old, and gradually increase the dose, in proportion to the age, to fifteen minims every second hour, should the paroxysms become aggravated, or of more

frequent recurrence. When the intervals become lengthened, which generally happens after the second day, the medicine may be given less frequently; but it is of importance that the acid should be continued ten days after all symptoms of the disease have subsided. From the neglect of this precaution, I have seen the cough return with all its former violence, when the medicine has been abruptly discontinued; therefore it should be given in moderate doses three times a day after all traces of the affection have passed away.

The form I generally use is the one originally suggested, viz., diluted nitric acid, compound tincture of cardamoms, syrup and water. This is always taken without the slightest reluctance, as it is agreeable to the taste—a great consideration in prescribing a medicine for children which requires to be continued for some length of time.

In conjunction with the above treatment I have invariably employed a stimulating embrocation to the back and chest night and morning, consisting of one ounce of camphor liniment, and two drachms of spirits of turpentine.

Of course, it is necessary, as in all diseases of the respiratory organs, that proper attention should be paid to the state of the bowels, regulation of temperature, clothing, and diet. I have also seen great benefit derived from the inhalation of the fumes of burning nitre-paper; two pieces of about four inches square are burnt in the bedroom on retiring to rest, and one piece burnt occasionally in the room occupied by the child in the daytime, appears to shorten the paroxysm, and to deprive it in a great measure of its spasmodic character, rendering it more like the cough of ordinary catarrh. Chloroform is the best anti-spasmodic that can be used during the fit, but parents have a great dread of its effects, unless administered by the medical attendant; but, from the apparent simplicity in the fumes of burning nitre-paper, they are readily induced to give it a trial.—*Medical Times and Gazette.*

On the Otorrhœa of Young Children. Translated for the Boston Medical and Surgical Journal, from the *Journal für Kinderkrankheiten.*

Otorrhœa, or a discharge or running from the ear, consists, in very many cases, of merely a chronic inflammation of the external passage of the ear, which has given rise to an increased secretion. The inflammation is usually confined to the external portion of the meatus, but sometimes extends to the surface of the membrane of the tympanum. The disease is most frequently observed in children, although it is not rare in adults. In the former, it is generally accompanied by a tendency to glandular engorgements, with symptoms of general debility; in adults, it is also the sign of a depressed condition of health. The exciting cause may be a blow upon the ear, the employment of irritating local applications to the ear, or any acute inflammation of the lining membrane of the meatus; but the most frequent causes are scarlet fever, measles, or catarrhs. Often no cause can be discovered; the children complain of a slight irritation in the ear.

which they seek to allay by introducing the finger, or a little stick, and the irritation disappears when the discharge begins. Sometimes, however, the discharge is the first symptom of the disease. In the early stages, the hearing is only slightly diminished by the disease, even when the inflammation and swelling extend to the external surface of the membrane of the tympanum; but when the disease has existed for any length of time, the membrane itself participates in it, and dullness of hearing, or deafness, ensues. Moreover, it must be borne in mind that catarrh of the meatus and external surface of the tympanum is often but a symptom of irritation *within the tympanum*, and ceases as soon as this irritation is removed. After the disease has existed some time, there is often considerable irritation of the meatus, amounting, at times, to acute pain, with occasionally slight hæmorrhage. Hæmorrhage is more frequent, however, when there is a polypus in the meatus.

On examination of the meatus, its lining membrane is found to be thicker than usual, and sometimes so much so as to close the passage entirely. In many cases the membrane is red, and destitute of epithelium; on the other hand, it is frequently white, and covered with a thick epithelial layer. The secretion is generally very fœtid, of various colors: sometimes of a milk-white; at others, of a dark slate color; and, whatever its quantity, color, or consistence, it never contains flocculi, but, when mixed with water, renders it cloudy.

It need hardly be said that polypus sometimes exists along with chronic catarrh of the meatus. In such cases there is bleeding from the ear, and flocculi are found in the secretion. The latter are also found when there is ulceration of the fibrous tissue of the membrana tympani, in which case blood is often mixed with the secretion. If the catarrhal inflammation extends to the mucous membrane of the membrana, the latter becomes, like the meatus, thickened, and often very much congested. The membrane then loses its natural color and form; if we are able to employ a speculum, the outer surface is seen to be flatter than usual, and, in consequence of its thickening, neither the long nor the short process of the stapes is visible.

In the *treatment* of catarrhal otorrhœa, it is of the first importance to remove the secretion, and keep the meatus clean. This is best done by frequent syringing with lukewarm water. If there be so much pain or tenderness that the syringe cannot be used, one or two leeches must be applied to the outer edge of the meatus, followed by warm fomentations or poultices, or the vapor of warm water may be directed upon the ear. After all tenderness is removed, and the meatus cleansed from the secretion, weak astringent solutions should be injected, and moderate counter-irritation applied to the mastoid process. These simple means, in connection with remedies for improving the general health, especially tonics, suffice, in very many cases, for curing the discharge. In very obstinate cases, the counter-irritation to the mastoid process must be maintained, so as to keep up an artificial discharge, which is best done by means of croton oil; and a strong solution of nitrate of silver (ten to forty grains to the

ounce) should be thrown into the meatus every third day, by means of a glass syringe.

There are cases, however, which resist this treatment, the discharge continuing unchanged for two or three months. The treatment should then be steadily persevered in, as it may at least prevent ulceration of the membrane of the tympanum, caries of the bones, and the development of polypi.

EDITORIAL AND MISCELLANEOUS.

—Sanitary Science in general, and Quarantine in particular, have been the topics of interest of the month. The Sanitary Convention, composed of physicians, delegates from various medical societies, and an equal number of civilians from the Councils and Boards of Health of most of the seaboard cities of our country, held its third annual meeting in this city the last days of April.

The Convention included a fair representation of those men in and out of the profession who have made sanitary affairs a study; the great majority, however, of the active participants in the discussions before the Convention were medical men, so that it was, to all intents, a medical body.

Dr. Griscom, the Chairman elect, in his inaugural address, stated the object of the Convention to be twofold: the external sanitary police of cities, and the internal hygiene of society. To the first, however, the action of this meeting of the Convention mainly tended, although the chairman showed by an array of figures the far greater necessity of a more rigid attention to the latter. In this city, he said, the loss of life from yellow fever, against which the barriers of Quarantine are raised, had been for the last fifty years only 600, while each year the mortality from those diseases which a close attention to the laws of private hygiene would entirely check or greatly diminish, has been numbered by thousands.

The principal, and about the only discussion, arose from the report on Quarantine, and upon one point in relation to this subject there was a remarkable unanimity of opinion, which was embodied in a resolution by Dr. Stevens, to the effect that in the opinion of the Convention "the personal quarantine of yellow fever may be safely abolished."

The report of the committee was mainly adopted, but a portion of it which found all existing systems of Quarantine defective, and of lit-

tle beneficial use, was warmly opposed, and finally referred back to the committee. The committee, as a whole, not amending the report, a series of resolutions were passed advising the continuance of Quarantine throughout the year, and recommending the more careful attention to hygiene on board vessels.

A code of sanitary laws for cities, prepared by Dr. Clarke, of Boston, was also considered, and after much discussion and modification by a few amendments, was adopted by the Convention.

This body, although three years old, the first meeting having been held in Philadelphia in 1857, and the second, last year in Baltimore, is hardly yet in working order. Some unpleasant occurrences which happened at the preliminary meeting, in Philadelphia, threw some discredit upon the whole body; but we believe that the practical action of this meeting, and the respectable body which here assembled, has overcome all these objections, and we consequently look forward with many anticipations to the good to be accomplished by the proceedings of this body of sanitarians.

Public health is public wealth, and nothing but good can come from the agitation of sanitary matters, by a class of men who can present the most efficient argument to the people at large, for decided action upon the subject—the argument of self-interest. If the sanitarian will show to the community, by his statistics, the value of a rigid sanitary system, and not only show it once, but repeatedly, legislative action will soon be taken to accomplish all he desires. Herein we see the benefit of these yearly meetings; for yearly, the public mind will become interested in the subject, and eventually to some purpose.

As the subjects to be reported upon next year, including those of Food, City Cleanliness, Architecture with reference to Domiciliary Hygiene, and the Sale of Drugs and Poisons, are eminently practical and interesting, we expect the convention to be held next June, in Boston, will be more than usually attractive.

The Sanitary Association of New York, an organization which has arisen from the necessity of the day, and the objects of which are reform in the affairs of the city relating to health, supplies, in its deliberations, the deficiencies of the convention. It, also, is composed of members of the faculty, and laymen; and to this combination is perhaps owing its efficient and decisive action.

At a recent meeting, Dr. Griscom read an Essay "On Light, its Influence upon the Human System in preserving Health and pro-

ducing Disease," detailing the baneful effects of dark cellars, dark offices, dark tenement houses, restaurants, parlors, school-rooms, &c., upon their occupants.

Finally, the Academy of Medicine, at its second meeting in May, listened to the deferred paper, by Dr. Harris, "On the Philosophy of Quarantine." The various systems of quarantine, adopted by different nations, were reviewed, and the policy of that existing in our own harbor was critically examined, and dealt with harshly, its inconsistencies pointed out, and its defects thoroughly probed. More stringent measures on board ship were recommended to be adopted, which might eventually supersede the necessity of a quarantine; but under existing circumstances, and until these sanitary regulations are made obligatory upon masters of vessels coming to this port, by legislative act, and this obligation enforced, a quarantine must be sustained.

The subject of the personal contagiousness of yellow fever is to be discussed at the next meeting of the Academy. Whatever action may be taken upon it, the Academy is too tardy. The Sanitary Convention and the Association are both more positive in their deliberations, and less conservative in their decisions, and have already acted upon this subject. The golden opportunity afforded the Academy to lead public opinion is lost. Now it can occupy only a secondary position, and must be content with the reputation of echoing an opinion already expressed by another body, if it adopts the spirit of the paper read by Dr. Harris. This arises from the element of pseudo-conservatism in its constitution, which so constantly modifies its actions. It would be well if this element could, in a great measure, be discarded, or a more healthy sentiment infused into it.

— The late date at which we received the *Semi-Monthly Medical News*, from which we copy the proceedings of the American Medical Association, prevents us from making any lengthened remarks upon the character of these transactions. Many articles prepared for this number have been crowded out, to make room for what we suppose the whole profession is anxious to see, the results of the annual meeting of the delegates to our National Association.

Two remarks we must make, however: one of deprecation, and the other, we are glad to say, of congratulation. We are sorry to notice such a falling off in the number of papers and reports from the Special Committees, for scarcely one, out of the great number appointed last year at Washington, fulfilled their pledge, given when they accepted the nomination, to report. The failure to find an Essay worthy the

prize among those contending for it, is another fact deplorable to mention. The interest in the Association must be flagging, or else there are radical defects in its operations. In either event, it becomes those who are more intimately associated with its workings by the tenure of their office to look into this subject, and to search for some method by which other failures will hereafter be prevented.

We think there is cause for congratulation in the probable effect of the plan proposed for the division of the Association into sections, in order to facilitate the transaction of business. The plan has been adopted by the American Association for the Advancement of Science, and its efficiency satisfactorily tested. The interest in the Association, we do not doubt, will be greatly increased; for then those who have no desire to quibble on points of order, or to listen to a fine-spun debate upon some captious ethical disagreement, can enter the sections and hear the papers and debates. This will be something to travel a thousand miles for; but as now constituted, the journeying is done to little other purpose than to listen to speeches of organization, and to attend the feasts appointed for the time. In this movement we see, therefore, a cause for congratulation, and a safeguard for the active continuance of the Association.

—We are not in the least disappointed in the result of the Convention of Teachers. Our views upon this subject were given at some length in the April No. of the MONTHLY, and we shall, therefore, not reproduce them here. The failure in nearly all the larger institutions to send delegates looks almost like a concert of action, but this we do not credit; we rather attribute it to the indifference resulting from a want of confidence in any tangible result to be effected by this Convention. Had much been expected, we doubt whether a College in the country would have been unrepresented.

— The professorial changes in the medical colleges of the country have been quite numerous this spring. Besides the establishment of the new Lind University, mentioned in our last number, which required a resignation, on the part of several members of its faculty, of their former connection with the Rush Medical College, we have heard mentioned the formation of two other new institutions: one under the very euphonious title of the University of the Pacific, which is already in operation, with a full complement of professors; and the other to be located in Mobile, Ala. The faculty of the latter has not yet been announced; but it is said Dr. J. C. Nott is to occupy the chair of Surgery.

Among the resignations we may place Dr. B. F. Barker, of the chair of Obstetrics, and Dr. T. Childs, of the chair of Anatomy, in the New York Medical College. Their successors are not yet announced, though several names are mentioned in this connection.

Prof. Geo. B. Wood has retired from the Pennsylvania Hospital, and Dr. F. G. Smith has been elected to succeed him. Dr. Wood has also signified his intention to resign the chair of Practice in the University of Pennsylvania, at the close of the next course of lectures.

The whole faculty of the Pennsylvania Medical College have resigned *en masse*, and the faculty of the Philadelphia School of Medicine have been elected to supply the vacuum, merging, as it would seem, the two schools into one.

At Albany, Drs. Hun and Dean have both resigned. To supply their chairs, Prof. Howard Townsend unites Physiology with Materia Medica, and Prof. Quackenbush, Medical Jurisprudence with Obstetrics.

Prof. J. G. Howard retires from the chair of Anatomy in the Savannah Medical College, and Dr. W. R. Waring has been appointed to fill the vacancy.

Among the new appointments we may signalize that of Dr. Austin Flint, Jr., to the chair of Physiology and Microscopy; and of Dr. Sandford Eastman to the chair of Anatomy. These two chairs were formerly united in one, under the professorship of Dr. S. B. Hunt, who has resigned.

To the Medical College of South Carolina Dr. Geddings has returned, filling the vacancy occasioned by the death of Prof. Gaillard.

Dr. Geo. T. Elliott, Jr., has been appointed adjunct Professor of Obstetrics, and Dr. Thos. M. Markoe adjunct Professor of Surgery in the College of Physicians and Surgeons of this city.

— A copy of the *Transactions of the Medical Society of the State of New York* was placed in our hands early in the month. It was our intention to give a brief notice of each of the papers contained in this volume, but we have been obliged to defer it, on account of the publication of the proceedings of the American Association, which has crowded out this as well as other interesting matter prepared for our pages. The titles of the papers we have already given in the March No., when noticing the meeting of the Society. The volume which unites these papers is smaller than that of the preceding year, but is well illustrated, and has a great variety of interesting papers; among them will be found the republished transactions of the Society from 1807 to 1831 inclusive. We shall recur to this volume again.

— *On the Administration of Medicines to Children.*—M. Wahu having much to do with the diseases of children, wishes to impress upon practitioners the importance, in the case of important medicinal substances, having them administered, whenever practicable, in their own presence. He also states some of the means he adopts to enable certain medicines to be more easily got down. Thus, the subnitrate of *bismuth*, in large doses, which is of such value in diarrhœa and the gastro-intestinal affections of children, often subsides to the bottom of the spoon when given in broth or milk; and it is much more readily taken also by children of about two years old when given in chocolate prepared with water, and thickened with tapioca, or crumbs of bread. In this way seventy grains and more may be given night and morning. In the same way *iron* can be very readily given. *Ratany* and *catechu*, two precious drugs, the action of which, when in small doses, is soon manifested in children, can also very readily be given in this chocolate panada. Chocolate made with either milk or water, and flavored with canella or vanilla, is usually very readily taken by children, and its dark color facilitates the mixing of numerous colored medicinal substances, which would be observed by the little patients were they given in milk, broth, or any infusion. Ratany and catechu may also be well triturated and mixed with quince jelly, the flavor of which, while masking that of other substances, is very agreeable to children. *Sulphate of soda* and *sulphate of magnesia* are substances very difficult to get even adults to take. The sulphate of soda may often be administered to children, by dissolving 10 parts in 150 of unsalted beef-tea, and waiting until the child is sufficiently thirsty to swallow a cup of liquid almost without tasting it. For adults, the best means is to dissolve the sulphate of soda or magnesia in exactly the quantity of hot water necessary for its complete solution. This is allowed to get cold, and a glass of pretty strong lemonade is prepared. Holding a glass in each hand, that containing the salt is rapidly drank, and then the lemonade is slowly drank—masking the detestable taste of the purgative, and supplying enough fluid to prevent its proving too irritating. *Corsican moss* is another substance which children take with difficulty; but if an infusion be made and strained, and then added to unsalted beef-tea, it will be readily swallowed. *Calomel* is one of the most difficult medicines to give, when children are too young to swallow pills, which is the case under six years of age. Incorporating it in honey is the best means—rinsing the mouth afterwards, to prevent any adhering to the gums. It should never be given in currant, or any other jelly; a death having occurred a few years since from the conversion of the calomel given in currant jelly into a bichloride. It is safest to prohibit any acid drink being taken on the day that calomel is given. *Ipecac.* may be given either in the chocolate panada or in honey. When it is impossible to give any medicinal substance by the mouth, it may be administered by the rectum, taking care first to empty the gut by tepid water or an emollient decoction, and that the bulk of the medicated enema do not exceed from four to six ounces, so that it may be retained and absorbed. It should also be borne in mind that as some

substances, such as opium and other narcotics, are easily absorbed by the large intestine, doses less than would be given by the mouth must be employed. Quinine, on the contrary, requires to be doubled in quantity to be of any use. In forcing a child to swallow, the usual practice is to pinch the nose; but a part of the medicine will be rejected, if the precaution be not taken to keep the nares completely closed *until deglutition is completed*. So, too, when medicines are thus forced down a child, it must be kept the whole time in a *sitting posture*, until deglutition has been completely accomplished. A suffocative cough may be induced, if it be allowed to lie down again, still having some of the liquid in the mouth.—*Gaz. des Hôp.*, 1858, No. 78.

—*Mercury in the Early Days of Syphilis.*—During the ten years which followed the appearance of the *Neapolitan Disease*, physicians, surprised by the new malady, and terrified at its ravages, were not a little disconcerted. They treated it with repugnance, with hesitation and incertitude. While they were thus elaborating in their cabinets new curative methods, wherein astrology played no small part, the charlatans of the day, as usual, little respectful of theories, and more occupied with attempts at curing the disease than desirous of respecting Galen, made use of mercury in ointments and in lotions, with unheard-of boldness. The disastrous effects which followed this abuse of the remedy naturally led physicians to shrink from the employment of an agent which they had always been taught by Galen to consider as "*frigidum venenum.*" But in making use of bleedings, digestives, evacuants, alexipharmics, instead of it, their cures were still not brilliant. Sebastian Brant, who in 1496 thundered out diatribes against mercury; Vochs, who in 1507 called the partisans of mercurial friction assassins and murderers—were not more happy in their cures than Torella, Aquilanus, Pinctor, and Montagdana. Patients, little satisfied with their doctors, rushed to the empirics; and it was only by adopting, in a more or less modified form, the medicaments of the quacks, that the doctor drew back to himself his faithless patients. Mercury was then used, under some certain degree of legislation; but it was long before its use became general, for enormities, such as the unfortunate Hutton has so eloquently described, were still committed with it; and besides, in 1519 rivals arose which kept it in check for thirty years—guiacum and sarsaparilla.—*Gaz. Hebd.*

—*The Right Treatment of Quacks.*—"There undoubtedly ought to be a declaratory act withdrawing expressly from the St. John Longs, and other quacks, the protection which the law is inclined to throw around the mistakes and miscarriages of the regularly educated practitioner."—*Coleridge's Table Talk.*

Chlorined Water in Dissection Wounds.—M. Garrigon states that repeated experience has convinced him of the efficacy of the treatment long since recommended by M. Nonant, of placing the hand suffering from dissection wounds in chlorinated water. The application will be always found efficacious, providing purulent infection have not already set in, when it will be useless.—*Gaz. des Hôp.*, 1859, No. 30.

— *Oleo-calcareous Liniment in Erysipelas.*—M. Tournié, guided by the analogy which prevails between erysipelas and the slighter degree of burns, was induced to try an application, equal parts of almond oil and lime-water, which has been often found of service in the latter. This admits of being applied to any part, and to any extent, is very agreeable to the feelings of the patient, and, as far as the author has tried it, it has proved of great utility.—*L'Union Méd.*, 1858, No. 80.

— *On Serous Metrorrhœa in Pregnancy.*—M. Chassinat, in a very elaborate essay upon this subject, founded upon forty-two cases which he has collected from various authors, and ten cases not hitherto published, comes to the following conclusions: 1. The metrorrhœa of pregnant women, appearing at variable periods in the course of pregnancy, is an affection of the reality of which no doubt can be entertained. 2. In the great majority of cases, if not in all, the liquid is secreted between the internal surface of the uterus and the envelopes of the fœtus after detachment of the membranes. The differential characters suffice to distinguish it from the waters of the amnios, discharged by reason of the premature rupture of the membranes. 3. The causes which seem to favor this abnormal secretion are a general polyæmia, or local irritation of the uterus, supervening in several cases upon external violence. 4. The pathognomic symptom is the issue of a fluid from the vulva, which is usually limpid, thin and albuminous, and which may or not be accompanied by painful uterine contractions. 5. There is no anatomical lesion known which is peculiar to the disease. 6. In the great number of the cases, the metrorrhœa is dangerous to neither mother nor child, pregnancy going on to its normal term, the liquor amnii being as abundant as usual, and delivery proving neither longer nor more laborious. 7. As a general rule, no treatment is required. If general plethora prevails, bleeding may be resorted to. With rare exceptions, the pregnancy should be left to itself, and the labor allowed to terminate by the sole efforts of nature.—*Gazette Méd.*, 1858. No. 49.

Books and Pamphlets Received.

Five Essays. By John Kearsley Mitchell, M.D., &c. Edited by S. Weir Mitchell, M.D., &c. Philadelphia: J. B. Lippincott & Co., 1859.

A Treatise on Baths; including Cold, Sea, Warm, Hot, Vapor, Gas, and Mud Baths; also, on Hydropathy, and Pulmonary Inhalations, with a Description of Bathing in Ancient and Modern Times. By John Bell, M.D., &c. Second Edition. Philadelphia: Lindsay & Blakiston, 1859.—$1.25.

Journal de la Physiologie des Hommes et des Animaux, publie sous la direction du Docteur E. Brown-Séquard. Janvier, 1859.

Archives of Medicine. Edited by Lionel S. Beale, M.B., F.R.S., &c. No. III.

Science and Success. A Valedictory Address. By Henry Jacob Bigelow, M.D.

Congenital Exstrophy of the Urinary Bladder, and its complications, successfully treated by a new Plastic Operation. By Daniel Ayres, M.D., LL.D., &c. (From the Author.)

Our Infantile Mortality and the Establishment of Hospitals for Sick Children. By Wm. Moore, A.B., M.B., &c. Dublin: Fannin & Co. (From the Author.)